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# Regulations and Non-Regulatory Revisions to State Implementation Plan: Pennsylvania

Atlantic Environmental Associates, Inc.
Waltham, MA

Prepared for

Environmental Protection Agency
Research Triangle Park, NC

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EPA-450/2-81-058

# Regulations and Non-Regulatory Revisions to State Implementation Plan: Pennsylvania

By

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Contract No. 68-02-3565

EPA Project Officer: Willis P. Beal

Prepared for

U.S ENVIRONMENTAL PROTECTION AGENCY
Control Programs Development Division
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

July 1981

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16. ABSTRACT

This document has been produced in compliance with Section 110(h) of the Clean Air Act, as amended in 1977, which mandates periodic publication of State Implementation Plan (SIP) requirements. The first section of the document comprises the Federally approved SIP regulations. It consists of the EPA-approved State and/or local air pollution control regulations cited by reference in the Federal Register; regulations promulgated as of August 1, 1981 have been included in this document.

The present compilation constitutes an update of a previous documentation of regulations as of July 1, 1979. State and/or local air quality regulations which have not been Federally approved as of August 1, 1981, are not included. However, any omissions of regulations from this document in no way affects the ability of the respective Federal, State, or local agencies to enforce such regulations. A summary sheet of the regulatory revisions is provided to give a quick historical assessment of the changes.

The second part of the document contains the text of non-regulatory SIP revisions approved by EPA up to August 1, 1981, excluding notices or certifications of public hearings and technical support data. A complete tabulation of these revisions is also provided.

17. KEY WORDS AND DOCUMENT ANALYSIS

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# PREFACE

This document has been produced in compliance with Section 110(h) of the Clean Air Act, as amended in 1977, which mandates periodic publication of State Implementation Plan (SIP) requirements. The first section of the document comprises the Federally approved SIP regulations. It consists of the EPA approved State and/or local air pollution control regulations cited by reference in the Federal Register; all regulations Federally promulgated as of August 1, 1981 have been included.

The present compilation constitutes an update of a previous documentation of regulations as of July 1, 1979.* State and/or local air quality regulations which have not been Federally approved as of August 1, 1981 are not included. However, any omissions of regulations from this document in no way affects the ability of the respective Federal, State or local agencies to enforce such regulations.

This document is not intended to provide a tool for determining the enforceability of any given regulation. Rather, it is intended to provide a comprehensive compilation of those regulations which are incorporated by reference into Title 40, Part 52, of the Code of Federal Regulations (CFR). The exclusion of a Federally approved regulation from this document does not diminish the enforceability of the regulation. Similarly, the inclusion of a given regulation in this document does not, in itself, render the regulation enforceable by either the State or EPA.

The regulations have been organized in this document according to the official State/local agency format. However, since State air quality regulations vary widely in their organization, content, and language, a standardized subject index has been added. The index listings consist of both pollutant and activity oriented categories to facilitate usage. For example, regulations which apply to copper smelters may be found under sulfur compounds (50.2), particulate matter process weight (50.1.1), or copper smelters (51.15). Federal regulations pertaining to a given State are not included herein but can be found under Title 40 Code of Federal Regulations, Part 52.

Additionally, a summary sheet of the regulatory revisions is included to provide a quick historical assessment of the changes. These summary sheets contain the date of submittal to EPA of each revision and the Federal Register publication date on which the revision was approved by EPA. A brief description of the regulation which was submitted is also included.

In accordance with the Act, the second part of the document contains non-regulatory SIP revisions approved by EPA up to August 1, 1981. All approved non-regulatory revisions listed under Identification of Plan in the CFR are included except notices or certifications of public hearings, and technical support data. Non-regulatory submittals which have only received EPA approval on selected elements are included in their entirety with an accompanying indication of the status of Federal actions on the non-approved elements. The non-regulatory revisions have been organized in this document according to the date of publication of EPA approval in the Federal Register. For historical completeness, a complete tabulation of these revisions is provided at the beginning of this second section.

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*Regulations and Non-Regulatory Revisions to State Implementation Plan: Pennsylvania, EPA-450/2-80-045, prepared under Contract 68-02-3388, July 31, 1980.

## SUMMARY OF
## EPA-APPROVED REGULATORY REVISIONS TO STATE OF PENNSYLVANIA SIP
## BETWEEN JULY 1, 1979 AND JULY 31, 1981

| Publication of Approval | Submittal Date | Page | Document Description |
|---|---|---|---|
| 07/17/79 | 06/30/78 | 44FR41431 | Amendments to Chapters 121 (121.1), 123 (123.1, 123.13, 123.44), 127 (127.41 through 127.52, inclusive), 129 (129.15 and 129.16), and 139 (139.51, 139.52, 139.53 and 139.61), dealing with the control of coke oven battery operations. |
| 08/08/79 | 04/24/79 | 44FR46467 | Amendments to Chapters 121 (121.1), 123 (123.33(b) and 123.45), and 139 (139.3, 139.4, 139.13, 139.16, 139.101, 139.102, 139.103, 139.104 and 139.105), dealing with sulfur dioxide emissions from fuel-burning installations. (Note: Only as they apply to sources in the Erie air basin.) |
| 12/17/79 | 09/20/78 | 44FR73032 | Revision clarifying terms and intent of Chapter 121 (relating to general provisions), Chapter 123 (relating to standards for contaminants) and Chapter 129 (relating to standards for sources). |
| 01/23/80 | - | 45FR5303 | Revision to 08/08/79 Federal Register Notice approval clarifying which regulations are approved. No submittal. |
| 05/20/80 | 06/12/79 | 45FR33627 | Special Permit Requirements for Sources Locating in or Significantly Impacting Nonattainment Areas and a revision of Sampling and Testing Methods for TSP amending Chapters 121, 127, and 139 of the PA Code. |
| 05/20/80 | 06/13/79 | 45FR33627 | Allegheny County Volatile Organic Compound Regulations amending Chapters I, II and V of Allegheny County Regulations. |
| 08/19/80 | 08/11/76 | 45FR55179 | Amendment to the Pennsylvania Air Resources Regulations for open burning; Chapter 129 Standards for Sources. |

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## ALLEGHENY COUNTY HEALTH DEPARTMENT

## RULES AND REGULATIONS - ARTICLE XVIII

## AIR POLLUTION CONTROL

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# CHAPTER 121. GENERAL PROVISIONS

XXV

# CHAPTER 121. GENERAL PROVISIONS

## GENERAL

### 121.1 Definitions

Allowable emissions - The emission rate calculated using the maximum rated capacity of the source (unless the source is subject to enforceable permit conditions which limit operating rate, or hours of operation, or both) and the most stringent of the following:

(i) Applicable new source performance standards or standards for hazardous pollutants set forth in 40 CFR Part 60 or 61:

(ii) Applicable emission limitation under this Title: or

(iii) The emission rate specified as an enforceable permit condition.

Ambient air quality standards - Concentrations of air contaminants in the ambient air, as provided for in Chapter 131 of this Title (relating to ambient air quality standards).

Automobiles - All passenger cars capable of seating 12 or fewer pasengers and all major components of such cars including, but not limited to, chassis, frames, doors, and engines.

Beaver Valley air basin - The following political subdivisions in Lawrence County: Bessemer Borough, Ellport Borough, Ellwood City Borough, Enon Valley Borough, Little Beaver Township, New Beaver Borough, City of New Castle, North Beaver Township, Shenango Township, South New Castle Borough, Taylor Township, Wampum Borough, Wayne Township and all Beaver County except for the following political subdivisions: Darlington Borough, Darlington Township, Economy Borough, Frankfort Springs Borough, Franklin Township, Hanover Township, Independence Township, Marion Township, New Sewickley Township and South Beaver Township.

Best available technology - Equipment, devices, methods or techniques which will prevent, reduce or control emissions of air contaminants to the maximum degree possible and which are available or can be made available.

Board - The Environmental Hearing Board established by the Administrative Code of 1929, the Act of April 9, 1929, P.L. 177, as amended December 3, 1970, Act No. 275 (71 P.S. 51 et seq.).

Bulk gasoline plant - a gasoline storage and distribution facility with an average daily throughput of less than 20,000 gallons (76,000 liters).

Bulk gasoline terminal - A gasoline storage and distribution facility which has an average daily throughput of 20,000 gallons (76,000 liters) or more of gasoline.

Can coating - Exterior coating and interior spray coating in two-piece can lines; interior and exterior coating in sheet coating lines for three-piece cans; side seam spray coating and interior spray coating in can fabricating lines for three-piece cans; and sealing compound application and sheet coating in end coating lines.

Charging - The operation by which coal is introduced into a coke oven.

Charging port - Any opening on the oven through which coal is, or may be, introduced into a coke oven whether or not such opening is regularly used for that purpose, including any jumper pipe port.

Clean Air Act - The Federal Clean Air Act, as amended by Public Law 91-604, 84 Stat. 1676 (42 U.S.C. 1857 et seq.), and the rules and regulations promulgated thereunder.

Closed charging - The introduction of coal into a coke oven without exposing or opening the receiving coke oven to the atmosphere during charging.

Closed charging emissions - Any air contaminant emitted during closed charging from any equipment through or by which coal is transported from storage or preheat hoppers and from any point on the receiving oven, including but not limited to any transport pipe, duct, fitting, valve, or any charging port or offtake piping.

Coating - Any fluid including, but not limited to, paint, varnish, ink, adhesive, solvent and water to be applied to a solid surface to form a hard exterior surface.

Coil coating - The coating of any flat metal sheet or strip.

Coke oven - The chamber into which coal is introduced for coking, including but not limited to the doors, jambs, refractory floor, walls and ceiling, charging ports and charging port covers, that is, lids, and the offtake piping, damper, and other ducts or piping associated therewith.

Coke oven battery - Any jointly operated group of slot-type coke ovens, the operation of which results in the destructive distillation of coal by the indirect application of heat to separate the gaseous and liquid distillates from the carbon residue, and includes coal preparation, coal charging, coking, the separation and cleaning of the distillates, coke pushing, hot coke transfer, and coke quenching. A coke oven battery is a single source for the purpose of this Article and shall include, but not be limited to, the following, when present: the ovens, coal pre-heaters, underfiring system, waste heat stack, offtake piping, flues, closed charging systems, door hoods, and operating equipment including larry cars, jumper pipes, pusher machines, door machines, mud trucks, and quench cars, associated with the operation of a battery. Existing batteries are identified as follows:

| Operator | Plant | Identifying Symbol |
|---|---|---|
| Alan Wood Steel | Conshohocken | #3, #4 |
| Bethlehem Steel | Bethlehem | #2, #3, #5, "A" |
| | Franklin | #17, #18, #19 |
| | Rosedale | #15, #16 |
| Crucible Steel | Midland | 1-A, 2-A, 3-A |
| Jones & Laughlin Steel | Aliquippa | A-1, A-3, A-4, A-5 |
| Koppers Company | Erie | "A", "B" |
| United States Steel | Fairless | #1, #2 |
| Wheeling-Pittsburgh Steel | Monessen | #1, #2 |

Coke oven gas collector main - The pipe or duct by which the gaseous by-products of coking are transported from the offtake piping of coke ovens to the by-product plant.

Coke oven topside - The top of any coke oven, including but not limited to the charging ports, charging port covers, that is, lids, refractory ceiling, flue caps, and offtake piping associated with an oven.

Cold cleaning degreaser - Any batch loaded device using non-boiling organic solvent to clean or degrease metal parts.

Combustion unit - Any stationary equipment used to burn fuel primarily for the purpose of producing power or producing heat by indirect heat transfer.

Conveyorized degreaser - Any continuously loaded device, containing either boiling or non-boiling solvents, used to clean metal parts or used in the production of electronic circuit boards.

Cutback asphalt - Asphalt cement which has been liquefied by blending with petroleum solvents (diluents) which upon application evaporate to the atmophere. Excluded from this definition is any emulsified asphalt paving compound which contains less than twelve (12) percent of solvent (diluent) by volume.

Daily - The discrete 24-hour period from 12 midnight to the next 12-midnight.

Door area - The vertical face of a coke oven between the bench and the top of the battery and between two adjacent backstays.

Door area emissions - Any air contaminant emitted into the outdoor atmosphere from any door area, including, but not limited to, emissions from the door, chuck door, door seal, jamb, or refractory.

Emissions - Air contaminants emitted into the outdoor atmosphere.

Erie air basin - The following political subdivisions in Erie County: City of Erie, Harborcreek Township, Lawrence Park Township, Milcreek Township and Wesleyville Borough.

Fabric coating - The coating of a textile substrate by a method including but not limited to roll coating, knife coating, spray coating or use of a rotogravure device in order to impart properties that are not initially present, such as strength, stability, water or acid repellancy, or appearance.

Facility - Any combination of air contamination sources located on one or more contiguous or adjacent properties and which is owned or operated by the same person (or by persons under common control).

Flue - Any duct, pipe, stack, chimney or conduit permitting air contaminants to be emitted into the outdoor atmosphere. In order to be classified as a flue, such duct, pipe, stack, chimney or conduit shall be of such a nature as to permit the performance of the test methods and procedures specified in Chapter 139 of this Title (relating to sampling and testing).

Freeboard ratio - For a cold cleaning degreaser, the distance from the liquid solvent to the top edge of the degreaser divided by the degreaser width (not length); for an operating vapor degreaser or a conveyorized degreaser, the distance from the top of the solvent vapor layer to the top edge of the degreaser divided by the degreaser width (not length).

Fugitive air contaminant - Any air contaminant of the outdoor atmosphere not emitted through a flue including but not limited to industrial process losses, stock pile losses, re-entrained dust, and construction/demolition activities.

Gasoline - Any petroleum distillate having a Reid vapor pressure of four pounds per square inch (28 kilopascals) or greater and which is a liquid at standard temperature and pressure.

Harrisburg air basin - The following political subdivisions in Cumberland County: Camp Hill Borough, East Pennsboro Township, Lemoyne Borough, New Cumberland Borough, West Fairview Borough, Wormleysburg Borough, and the following political subdivisions in Dauphin County: City of Harrisburg, Highspire Borough, Lower Swatara Township, Middletown Borough, Paxtang Borough, Penbrook Borough, Royalton Borough, Steelton Borough, Susquehanna Township and Swatara Township.

Harrisburg Area Transportation Study area - Includes the following municipalities of Cumberland, Dauphin, Perry and York Counties: Cumberland County - Boroughs of Camp Hill, Carlisle, Lemoyne, Mechanicsburg, Mount Holly Springs, New Cumberland, Shiremanstown, West Fairview, and Wormleysburg; Townships of East Pennsboro, Hampden, Lower Allen, Middlesex, Monroe, North Middleton, Silver Springs, South Middleton, and Upper Allen. Dauphin County - City of Harrisburg, Boroughs of Dauphin, Highspire, Hummelstown, Middletown, Paxtang, Pennbrook, Royalton, and Steelton; Townships of Conewago, Derry, East Hanover, Londonderry, Lower Paxton, Lower Swatara, Middle Paxton, Reed, South Hanover, Susquehanna, Swatara, and West Hanover. Perry County - Boroughs of Duncannon and Marysville; Townships of Rye and Penn. York County - Township of Fairview.

Inner zone of the Southeast Pennsylvania Air Basin - Philadelphia County; the following political subdivisions in Bucks County: Bensalem Township, Bristol Borough, Bristol Township, Falls Township, Morrisville Borough, Tullytown Borough: the following political subdivisions in Montgomery County: Abington Township, Bridgeport Borough, Bryn Athyn Borough, Cheltenhain Township, Conshohocken Burough, East Norriton Township, Jenkintown Borough, Lower Merion Township, Lower Moreland Township, Narberth Borough, Norristown Borough, Plymouth Township, Rockledge Borough, Springfield Township, Upper Merion Township, West Conshohocken Borough, West Norriton Township, Whitemarsh Township; and all of Delaware County except for Bethel Township, Birmingham Township, Chester Heights Borough, Concord Township, Edgemont Township, Newton Township, and Thornbury Township.

Johnstown air basin - The following political subdivisions in Cambria County: Brownstown Borough, Conemaugh Township, Daisytown Borough, Dale Borough, East Conemaugh Borough, East Taylor Township, Ferndale Borough, Franklin Borough, Geistown Borough, City of Johnstown, Lorain Borough, Lower Yoder Township, Middle Taylor Township, Southmont Borough, Stoneycreek Township, Upper Yoder Township, West Taylor Township and Westmont Borough.

Lancaster air basin - The following political subdivisions in Lancaster County: East Petersburg Borough, City of Lancaster, Lancaster Township, Manheim Township and Millersville Borough.

Large appliances - Doors, cases, lids, panels, and interior support parts of washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners, and other similar products.

Light duty trucks - Any motor vehicles rated at 8,500 pounds gross vehicle weight or less which are designed primarily for purpose of transportation or major components of such vehicles including but not limited to chassis, frames, doors, and engines.

Lowest achievable emission rate - The rate of emssions based on the following, whichever is more stringent:

(i) The most stringent emission limitation which is contained in the federal implementation plan of any state for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable; or

(ii) The most stringent emission limitation which is achieved in practice by such class or category of source.

Magnet wire coating - The process of applying a coating of electrically insulating varnish or enamel to aluminum or copper wire for use in electrical machinery.

Major modification - Any physical change in a source or any change in the method of operation of a source which would increase the maximum allowable emissions for the source by:

(i) 50 tons per year, 1,000 pounds per day, or 100 pounds per hour, whichever is more restrictive for particulate or SOx; or

(ii) 150 tons per year, 3,000 pounds per day, or 300 pounds per hour, whichever is more restrictive for volatile organic compounds.

Malodor - Any odor which causes annoyance or discomfort to the public and which the Department determines to be objectionable to the public.

Maximum allowable emissions - the emission rate calculated using the maximum rated capacity of the source (unless the source is subject to enforceable permit conditions which limit operating rate, or hours of operation, or both) and the most stringent of the following:

(i) Applicable new source performance standards or standards for hazardous pollutants set forth in 40 CFR Part 60 or 61:

(ii) Applicable emission limitation under this Title: or

(iii) The emission rate specified as an enforceable permit condition.

Metal furniture coating - The surface coating of any furniture made of metal or any metal part which will be assembled with other metal, wood, fabric, plastic or glass parts to form a furniture piece.

Mobil air contamination source - any vehicular air contamination source, including but not limited to automobiles, trucks, tractors, buses and other motor vehicles, railroad locomotives, ships, boats and other water-borne craft, but not including any source mounted on a vehicle whether such mounting is permanent or temporary, which source is not used to supply power to the vehicle.

Modification - Any physical change in a source or any change in the method of operation of a source which would increase the amount of any air contaminant emitted by such source or which would result in the emission of any air contaminant not previously emitted, except that routine maintenance, repair, and replacement shall not be considered physical changes.

Monongahel Valley air basin - The following political subdivisions in Fayette County: Belle Vernon Borough, Brownsville Borough, Brownsville Township, Fayette City Borough, Jefferson Township, Newell Borough, Washington Township, and the following political subdivisions in Washington County: Allenport Borough, California Borough, Carroll Township, Charleroi Borough, Coal Center Borough, Donora Borough, Dunlevy Borough, Elco Borough, Fallowfield Township, Finleyville Borough, Long Branch Borough, Monongahela City, New Eagle Borough, North Charleroi Borough, Roscoe Borough, Speers Borough, Stockdale Borough, Twilight Borough, Union Township, West Brownsville Borough, and the following political subdivisions in Westmoreland County: Monessen City, North Belle Vernon Borough, Rostraver Township and West Newton Borough.

New source - A stationary air contamination source which:

(i) was constructed and commenced operation on or after July 1, 1972; or

(ii) was modified, irrespective of any change in the amount or kind of air contaminants emitted, such that the fixed capital cost of new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new source. Fixed capital costs means the capital needed to provide all the depreciable components.

Nonattainment area - Any area designated by the Federal EPA pursuant to Section 107 of the Clean Air Act (42 U.S.C. section 7407 in the Code of Federal Regulations 40 CFR, section 81.339.

Noncommercial fuel - Any gaseous or liquid fuel generated as a by-product which is not specifically produced and manufactured for sale.

Non-specific particulate matter - Particulate matter which is non-odorous and non-irritating, including but not limited to alundum, calcium carbonate, cellulose, portland cement; graphite, gypsum, limestone, magnesite, starch, tin oxide and glycerine mist.

Offtake piping - The pipes or ducts by which the gaseous by-products of coking are transported from one end of an oven to a coke oven gas collector main, including the standpipe and standpipe cap.

Opacity - The degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Open burning - Any fire, the air contaminants from which are emitted directly into the outdoor atmosphere and not directed thereto through a flue.

Open charging - The introduction of coal into a coke oven which is open or exposed to the atmosphere during charging, beginning when the coal is introduced into the oven and continuing until the oven is closed from the atmosphere.

Open charging emissions - Any air contaminant emitted from one or more charging ports, spaces between charging part rings, and oven refractory open chuck doors, drop sleeves, larry car hoppers, jumper pipes, standpipe caps, or any device for the capture and cleaning of air contaminants during open charging, but not including any air contaminants emitted during the temporary removal of a charging part cover after it has been firmly seated over the charging port following the removal of the larry car.

Open top vapor degreaser - Any batch loaded device used to clean metal parts through the condensation of organic solvent on colder metal parts.

Outer zone of the Souteast Pennsylvania Air Basin - Those political subdivisions in the Southeast Pennsylvania Air Basin which are not in the Inner Zone of the Southeast Pennsylvania Air Basin.

Paper coating - Coatings applied in a uniform layer to paper and pressure sensitive tapes regardless of substrate. Related web coating processes on plastic films and decorative coatings on metal foil are included in this definition. Coatings applied in whole or in part as nonuniform layers such as patterns, designs, or print are not included.

Particulate matter - Any material, except uncombined water, that is or has been airborne and exists as a solid or liquid at 70 degrees F and 14.7 pounds per square inch absolute pressure.

Paving operation - The process of covering an area with stone, concrete, asphalt, or other material in order to make a firm, level surface for travel. Compounds used exclusively as residential driveway sealing compounds are excluded.

Potential emission rate - The total weight rate at which a particular air contaminant, in the absence of any air cleaning devices, would be emitted per unit of time from an air contamination source when such source is operated at its rated capacity.

Process - Any method, reaction, or operation wherein materials are handled or whereby materials undergo physical change (i.e. the size, shape, appearance, temperature, state or other physical property of the material is altered) or chemical change (i.e. a substance or substances with different chemical composition or properties are formed or created). A process includes all of the equipment and facilities necessary for the completion of the transformation of the materials to produce a physical or chemical change. There may be several processes in series or in parallel necessary to the manufacture of a product.

Pushing emissions - Any air contaminant emitted into the outdoor atmosphere which is generated by or results from the pushing operation.

Pushing Operation - The operation by which coke is removed from a coke oven and transported to a quench station, beginning when the coke side door is first removed from a coke oven and continuing until the quenching operation is commenced.

Quenching - The operation by which the combustion of hot coke is stopped by application of water or any other procedure achieving the same effect.

Rating - The operating limit of a source as stated by the manufacturer of the source or as determined by good engineering judgement.

Reading air basin - The following political subdivisions in Berks County: Bern Township, Cumru Township, Kenhorst Borough, Laureldale Borough, Leesport Borough, Lower Alsace Township, Mohnton Borough, Mt. Penn Borough, Muhlenberg Township, City of Reading, Shillington Borough, Sinking Spring Borough, Spring Township, St. Lawrence Borough, Temple Borough, West Lawn Borough, West Reading Borough, Wyonissing Borough, and Wyonissing Hills Borough.

Scranton, Wilkes-Barre air basin - The following political subdivisions in Lackawanna County: Archbald Borough, Blakely Borough, Dickson City Borough, Dunmore Borough, Jessup Borough, Moosic Borough, Old Forge Borough, Olyphant Borough, City of Scranton, Taylor Borough, Throop Borough, and the following political subdivisions in Luzerne County: Ashely Borough, Avoca Borough, Courtdale Borough, Dupont Borough, Edwardsville Borough, Exeter Borough, Forty Fort Borough, Hanover Township, Hugestown Borough, Jenkins Township, Kingston Borough, Laflin Borough, Larksville Borough, Laurel Run Borough, Luzerne Borough, City of Nanticoke, City of Pittston, Pittston Township, Plains Towhship, Plymouth Borough, Plymouth Township, Pringle Borough, Sugar Notch Borough, Swoyersville Borough, Warrior Run Borough, West Pittston Borough, West wyoming Borough, city of Wilkes-Barre Township, Wyoming Borough and Yatesville Borough.

Secondary emissions - Emissions from new or existing sources which occur as a result of the operation of a source or modification, but do not come from the source itself.

Solid fossil fuel - Petroleum coke, anthracite, bituminous coal, and sub-bituminous coal.

Solid fossil fuel fired combustion unit - Any combustion unit more than 10% of the annual heat input is derived by combustion of solid fossil fuels.

Solvent - Organic compounds which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents.

Source - Air contamination source.

Southeast Pennsylvania air basin - The following counties: Bucks, Chester, Delaware, Montgomery and Philadelphia.

SSU viscosity - The number of seconds it takes 60 cubic centimeters of an oil to flow through the standard orifice of a Saybolt Universal Viscometer at 100 degrees F.

Standard conditions - 70 degrees F and 14.7 pounds per square inch absolute pressure.

Stockpiling - The act of placing, storing, and removing materials on piles exposed to the outdoor atmosphere. Placing refers to the deposition of material onto the pile. Removing refers to disturbing the pile either for loading of material into or onto vehicles for transportation purposes or for material handling. Material that is not to be utilized in the production of a product or is not itself a useful product is excluded from the definition of stockpiled material. Operations which consist entirely of transferring material between different transportation conveyances are also excluded from the definition of stockpiling.

Surface coating process - The application and solidification of a coating.

Topside emissions - Any air contaminant emitted from one or more of any point on the coke oven topside, excluding charging and pushing emissions.

Vinyl coating - Application of decorative or protective topcoat or printing on vinyl sheets.

Volatile organic compounds (VOC) - Any compound, excluding carbonic acid, metallic carbides and carbonates, containing carbon and hydrogen or containing carbon and hydrogen in combination with any other element which has a vapor pressure greater than 0.002 psia (0.014 kilopascals) under standard conditions or which is collected employing the test procedures and conditions specified in Chapter 139.4.

York air basin - The following political subdivisions in York County: Manchester Township, North York Borough, Spring Garden Township, Springettsbury Township, West Manchester Township, West York Borough and City of York.

Wastewater separator - A holding area for waste liquids in which waste materials are separated from water by gravity.

## 121.2 Purpose

The purpose of this Article is to:

(1) Provide for the control and prevention of air pollution anywhere in this Commonwealth, except as expressly excluded in the act or otherwise noted in this Article; and

(2) Provide guidance for the design and operation of sources.

## 121.3 Applicability of this Article.

The provisions of this Article shall apply in all regions of this Commonwealth, unless otherwise clearly noted.

## 121.4 Regional organization of the Department.

The following regions are established for purposes of air pollution control and include the indicated counties:

Region 1: Bucks, Chester, Delaware, Montgomery, Philadelphia.

Region 11 N: Bradford, Lackawanna, Luzerne, Monroe, Pike, Sullivan, Susquehanna, Tioga, Wayne, Wyoming.

Region 11 S: Berks, Carbon, Lehigh, Northampton, Schuylkill.

Region 111: Adams, Cumberland, Dauphin, Franklin, Lancaster, Lebanon, Perry, York.

Region 1V: Bedford, Clair, Cambria, Centre, Clinton, Columbia, Fulton, Huntingdon, Juniata, Lycoming, Mifflin, Montour, Northumberland, Snyder, Somerset, Union.

| | |
|---|---|
| Region V: | Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Washington, Westmoreland. |
| Region VI: | Cameron, Clarion, Clearfield, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Potter, Venago, Warren. |

### 121.5 Referrals from associations.

(a) Complaints received by an association alleging that an air contamination source within the region of the association is causing air pollution shall be referred to the Department, in writing, within three months after its receipt by the association. Unless circumstances indicate otherwise, the computation of the three-month period shall run from the date that a complaint is originally received at the regional office of the Department.

(b) In referring complaints to the Department, the association shall state what efforts it has undertaken to resolve complaints, as provided in 6 of the act (35 P.S. 4006).

### 121.6 Requests for hearings.

The Board shall entertain a written request for a hearing by any party aggrieved by any order, permit, license or decision of the Department provided that the provisions of Chapter 21 of this Title (relating to rules of practice and procedure) are complied with.

### 121.7 Prohibition of air pollution.

No person shall cause, suffer, or permit air pollution as that term is defined in the act.

### 121.8 Compliance responsibilities.

Compliance with any provision of this Title shall not relieve any person of the responsibility to comply with any other provision of this Title, except when such relief has been clearly provided for in this Title. Unless explicit reference is made to another section, each section of this Title shall be construed and enforced according to its own terms. Thus, for example and without limitation on the general application of this section, compliance with both section 123.1 of this Title (relating to prohibition of certain fugitive emissions) and section 123.41 of this Title (relating to limitations) must be attained whether or not emissions comply with sections 123.11-123.13 of this Title (relating to particulate matter emissions). Compliance with each and every section of this Title must be independently determined.

### 121.9 Circumvention

No person shall cause, suffer, or permit the use of any device or technique which, without resulting in reduction of the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise be in violation of the provisions of this Article, except that with prior approval of the Department, such devices or techniques may be used for control of malodors.

### 121.10 Existing orders.

All orders and permits issued and all stipulations and agreements entered into by the Department prior to the effective date of this section shall continue in full force and effect, but no such order, permit, stipulation or agreement shall relieve any person from the responsibility to fully comply with all applicable provisions of this Article.

### 121.11 Severability clause.

The provisions of this Article shall be severable. If any provision of this Article is found by a court of record to be unconstitutional or void, the remaining provisions of the Article shall, nevertheless, remain valid unless the court finds the valid provisions of the Article are so essentially and inseparably connected with, and so depend upon, the void provision, that it cannot be presumed that the Environmental Quality Board would have adopted the remaining valid provisions without the void ones, or unless the court finds the remaining valid provisions standing alone, are incomplete and are incapable of being executed in accordance with the Environmental Quality Board's intent.

# CHAPTER 123. STANDARDS FOR CONTAMINANTS

## Authority

## FUGITIVE EMISSIONS

### 123.1 Prohibition of certain fugitive emissions.

(a) No person shall cause, suffer, or permit the emission into the outdoor atmosphere of any fugitive air contaminant from any other than the following:

(1) Construction or demolition of buildings or structures.

(2) Grading, paving and maintenance of roads and streets.

(3) Use of roads and streets. Emissions from material in or on trucks, railroad cars and other vehicular equipment shall not be considered as emissions from use of roads and streets.

(4) Clearing of land.

(5) Stockpiling of materials.

(6) Open burning operations.

(7) Blasting in open pit mines. Emissions from drilling shall not be considered as emissions from blasting.

(8) Coke oven batteries, provided the fugitive air contaminants emitted from any coke oven battery comply with the standards for visible fugitive emissions in 123.44 (relating to limitations of visible fugitive air contaminants from operation of any coke oven battery) and 129.15 (relating to coke pushing operations) of this Title.

(9) Sources and classes of sources, other than those identified in paragraphs (1)-(8) of this subsection, for which the operator has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:

(i) the emissions are of minor significance with respect to causing air pollution; and

(ii) the emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.

(b) Application forms for requesting a determination under either subsection (a)(9) of this section or 129.15(c) of this Title (relating to coke pushing operation) are available from the Department. In reviewing such applications, the Department may require the applicant to supply information including, but not limited to, a description of proposed control measures, characteristics of emissions, quantity of emissions, and ambient air quality data and analysis showing the impact of the source on ambient air quality. The applicant shall be required to demonstrate that the requirements of subsections (a)(9) and (c) of this section and 123.2 of this Title (relating to fugitive particulate matter) or of the requirements of 129.15(c) of this Title (relating to coke pushing operation) have been satisfied. Upon such demonstration, the Department will issue a determination, in writing, either as an operating permit condition, for those sources subject to permit requirements under the act, or as an order containing appropriate conditions and limitations.

(c) Any person responsible for any source specified in paragraphs (1) through (7) or (9) of subsection (a) of this section shall take all reasonable actions to prevent particulate matter from becoming airborne. Such actions shall include, but not be limited to, the following:

(1) Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, the grading of roads or the clearing of land.

(2) Application of asphalt, oil, water or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can give rise to airborne dusts.

(3) Paving and maintenance of roadways.

(4) Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

(d) The requirements contained in subsection (a) of this section and 123.2 of this Title (relating to fugitive particulate matter) shall not apply to fugitive emissions arising from the production of agricultural commodities in their unmanufactured state on the premises of the farm operation.

123.2 Fugitive particulate matter.

No person shall cause, suffer, or permit fugitive particulate matter to be emitted into the outdoor atmosphere from any source or sources specified in items (1) through (9) of 123.1 (a) of this Title (relating to prohibition of certain emissions) if such emissions are:

(1) Either visible, at any time, at the point such emissions pass outside the person's property, irrespective of the concentration of particulate matter in such emissions; or

(2) Not visible at the point such emissions pass outside the person's property and the average concentration, above background, of three samples, of such emissions at any point outside the person's property, exceeds 150 particles per cubic centimeter.

## PARTICULATE MATTER EMISSIONS

123.11 Combustion units.

(a) No person shall cause, suffer, or permit the emission into the outdoor atmosphere of particulate matter, at any time, from any combustion unit in excess of:

(1) The rate of 0.4 lbs. per million BTU of heat input, when the heat input to the combustion unit in millions of BTUs per hour is greater than 2.5 but less than 50.

(2) The rate determined by the formula:

$A = 3.6E^{-0.56}$ where:
A = Allowable emissions in lbs. per million BTU of heat input, and
E = Heat input to the combustion unit in millions of BTUs per hour.

when E is equal to or greater than 50 but less than 600.

(3) The rate of 0.1 lbs. per million BTU of heat input when the heat input to the combustion unit in millions of BTUs per hour is equal to or greater than 600.

(b) Allowable emissions under subsection (a) of this section are graphically indicated in Figure 1 appended to this Chapter.

## 123.12 Incinerators.

No person shall cause, suffer, or permit the emission to the outdoor atmosphere of particulate matter from any incinerator, at any time, in such a manner that the particulate matter concentration in the effluent gas exceeds 0.1 grains per dry standard cubic foot, corrected to 12% $CO_2$.

## 123.13 Processes.

(a) The provisions of subsections (b) and (c) of this section shall apply to all processes except combustion units and incinerators.

(b) No person shall cause, suffer, or permit the emission into the outdoor atmosphere of particulate matter from any process listed in the following table, at any time, either in excess of the rate calculated by the formula set forth in paragraph (2) of this subsection or in such a manner that the concentration of particulate matter in the effluent gas exceeds 0.02 grains per dry standard cubic foot, whichever is greater:

$A = 0.76E^{0.42}$, where:
A = Allowable emissions in lbs/hr
E = Emission index = F x W lbs/hr
F = Process factor in lbs/unit, and
W = Production or charging rate in units/hr

The factor F shall be obtained from Table 1. The units for F and W shall be compatible.

Allowable emissions under this subsection are graphically indicated in Figure 2 appended to this Chapter.

(c) No person shall cause, suffer, or permit the emission into the outdoor atmosphere of particulate matter from any process not listed in Table 1 in such a manner that the concentration of particulate matter in the effluent gas, at any time, exceeds:

(1) 0.04 grains per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.

(2) The rate determined by the formula:

$A = 6000E^{1}$ where:
A = Allowable emissions in grains per dry standard cubic foot, and
E = Effluent gas volume in dry standard cubic feet per minute,

when E is equal to or greater than 150,000 but less than 300,000.

(3) 0.02 grains per dry standard cubic foot, when the effluent gas volume is greater than 300,000 dry standard cubic feet per minute.

Allowable emissions under this subsection are graphically indicated in Figure 3 appended to this Chapter.

## TABLE 1

| | Process | Process Factor, F |
|---|---|---|
| 1. | Carbon black mfg. | 500 lbs./ton of product |
| 2. | Charcoal mfg. | 400 lbs./ton of product |
| 3. | Crushers or grinders or screens | 20 lbs./ton of feed |
| 4. | Paint mfg. | 0.05 lbs./ton of pigment handled |
| 5. | Phosphoric acid mfg. | 6 lbs./ton of phosphorous burned |
| 6. | Detergent drying | 30 lbs./ton of product |
| 7. | Alfalfa dehydration | 30 lbs./ton of product |
| 8. | Grain elevators: | |
| | Loading or unloading | 90 lbs./ton of grain |
| 9. | Grain screening and cleaning | 300 lbs./ton of grain |
| 10. | Grain drying | 200 lbs./ton of product |
| 11. | Meat smoking | 0.01 lbs./ton of meat |
| 12. | Ammonium nitrate mfg: | |
| | Granulator | 0.1 lbs./ton of product |
| 13. | Ferroalloy production furnace | 0.3 lbs./ton of product |
| 14. | Primary iron and/or steel making: | |
| | Iron production | 100 lbs./ton of product |
| | Sintering: windbox | 20 lbs./ton of dry solids feed |
| | Steel production | 40 lbs./ton of product |
| | Scarfing | 20 lbs./ton of product |
| 15. | Primary lead production: | |
| | Roasting | 0.004 lbs./ton of ore feed |
| | Sintering: windbox | 0.2 lbs./ton of sinter |
| | Lead reduction | 0.5 lbs./ton of product |
| 16. | Primary zinc production: | |
| | Roasting | 3 lbs./ton of ore feed |
| | Sintering: windbox | 2 lbs./ton of product |
| | Zinc reduction | 10 lbs./ton of product |
| 17. | Secondary aluminum production: | |
| | Sweating | 50 lbs./ton of aluminum product |
| | Melting and refining | 10 lbs./ton of aluminum feed |
| 18. | Brass and bronze production: | |
| | Melting and refining | 20 lbs./ton of product |
| 19. | Iron foundry: | |
| | Melting: | |
| | 5T./hr and less | 150 lbs./ton of iron |
| | More than 5T./hr | 50 lbs./ton of iron |
| | Sand handling | 20 lbs./ton of sand |
| | Shake-out | 20 lbs./ton of sand |
| 20. | Secondary lead smelting | 0.5 lbs./ton of product |
| 21. | Secondary magnesium smelting | 0.2 lbs./ton of product |
| 22. | Secondary zinc smelting: | |
| | Sweating | 0.01 lbs./ton of product |
| | Refining | 0.3 lbs./ton of product |
| 23. | Asphaltic concrete production | 6 lbs./ton of aggregate feed |
| 24. | Asphalt roofing mfg: | |
| | Felt saturation | 0.6 lbs./ton of asphalt used |

TABLE 1

| Process | Process Factor, F |
|---|---|
| 25. Portland cement mfg: | |
| Clinker production | 150 lbs./ton of dry solids feed |
| Clinker cooling | 50 lbs./ton of product |
| 26. Coal drying | 2 lbs./ton of product |
| 27. Coal dry-cleaning | 2 lbs./ton of product |
| 28. Lime calcining | 200 lbs./ton of product |
| 29. Petroleum refining: | |
| Catalytic cracking | 40 lbs./ton of liquid feed |
| 30. Pressed, blown and spun glass; glass production melting furnace | 50 lbs./ton of fill |
| 31. By-product coke production: pushing operation | 1 lb./ton coke pushed |

## SULFUR COMPOUND EMISSIONS

### 123.21 General.

(a) Subsection (b) of this section shall apply to all sources except those subject to the provisions of other sections of this Article, with respect to the control of sulfur compound emissions.

(b) No person shall cause, suffer, or permit the emission into the outdoor atmosphere of sulfur oxides, from any source, in such a manner that the concentration, at any time, of the sulfur oxides, expressed as $SO_2$, in the effluent gas exceeds 500 parts per million, by volume (dry basis).

### 123.22 Combustion units.

(a) Prohibited emissions in general. This subsection shall apply to all combustion units in all the air basins except those units subject to the provisions of subsections (b) and (c) of this section. No person shall cause, suffer, or permit the emission into the outdoor atmosphere of sulfur oxides expressed as $SO_2$, from any combustion unit, at any time, in excess of any of the following:

(i) The rate of 3.0 lbs. per million BTU of heat input when the heat input to the combustion unit in millions of BTUs per hour is greater than 2.5 but less than 50.

(ii) The rate determined by the formula:

$A = 5.1E^{0.14}$ where:
$A$ = Allowable emissions in lbs. per million BTU of heat input, and
$E$ = Heat input to the combustion unit in millions of BTUs per hour,

when E is equal to or greater than 50 but less than 2,000.

(iii) The rate of 1.8 lbs. per million BTU of heat input when the heat input to the combustion unit in millions of BTUs per hour is equal to or greater than 2,000

(b) Erie; Harrisburg; York; Lancaster; and Scranton, Wilkes-Barre air basins. (approved only for Erie air basin)

(i) General provision. No person shall cuase, suffer, or permit the emission into the outdoor atmosphere of sulfur oxides, expressed as $SO_2$, from any combustion unit, at anytime, in excess of the rate of four (4) pounds per million BTU of heat input over any one-hour period except as provided for in paragraph four (iv) of this subsection.

(ii) Commercial fuel oil. No person shall, at any time, offer for sale, deliver for use, exchange in trade, cause the use of, suffer the use of, or permit the use of commercial fuel oil in the subject air basins which contains sulfur in excess of the applicable percentage by weight set forth in the following table:

| Grades Commercial Fuel Oil | % Sulfur |
|---|---|
| No. 2 and lighter (viscosity less than or equal to 5.82cSt) | 0.3 |
| No. 4, No. 5, No. 6, and heavier (viscosity greater than 5.82cSt) | 2.8 |

(iii) Equivalency provision. Paragraph (ii)of this section shall not apply to those persons or installations where equipment or processes are used to reduce the emissions from the burning of fuels with a higher sulfur content than that specified in paragraph (ii) of this section; however, the emissions shall not exceed those which would result from the use of the fuels specified in paragraph (ii) of this section.

(iv) Solid fossil fuel fired combustion units.

(1) This paragraph shall apply to all solid fossil fuel fired combustion units with a rated capacity greater than or equal to 250 million BTUs of heat input per hour and to any solid fossil fuel fired combustion unit upon petition to and acceptance by the Department.

(2) The owner of any solid fossil fuel fired combustion unit with a rated capacity of less than 250 million BTU heat input per hour may petition the Department for application of the limitations in the paragraph in lieu of the limitations in paragraph (i). Upon demonstration

of installation of continuous monitoring equipment which complies with Chapter 139 of this Title, the Department will grant such petition.

(3) No person shall cause, suffer, or permit the emission into the outdoor atmosphere of sulfur oxides, expressed as $SO_2$, from any combustion unit, at any time, in excess of the rates set forth in the following table:

| | Allowable Lbs. $SO_2$ Per $10^6$ BTU Heat Input |
|---|---|
| Thirty (30) day running average not to be exceeded at any time | 3.7 |
| Daily average not to be exceeded more than two (2) days in any running thirty (30) day period | 4.0 |
| Daily average maximum not to be exceeded at any time | 4.8 |

(4) Any combustion unit which does not meet the requirements of section 123.25 for installation and operation of continuous $SO_2$ emission monitoring equipment shall be subject to the provisions of paragraph (i) of this subsection.

(c) Allentown, Bethlehem, Easton; Reading; and Johnstown air basins. (regulations submitted 04/29/79 but not approved)

(d) Allegheny County, Beaver Valley and Monongakela Valley air basins. No person shall cause, suffer, or permit the emission into the outdoor atmosphere of sulfur oxides, expressed as $SO_2$ from any combustion unit, at any time in excess of any of the following:

(i) The rate of 1.0 lb. per million BTU of heat input, when the heat input to the combustion unit in millions of BTUs per hour is greater than 2.5 but less than 50.

(ii) The rate determined by the formula:

A = 1.7E0.14, where:
A = Allowable emissions in lbs. per million BTU of heat input, and
E - Heat input to the combustion unit in millions of BTUs per hour,

when E is equal to or greater than 50 but less than 2,000.

(iii) The rate of 0.6 lbs. per million BTU of heat input when the heat input to the combustion unit in millions of BTUs per hour is equal to or greater than 2,000.

(e) Southeast Pennsylvania air basin.

(1) General provision. No person shall cause, suffer, or permit the emission into the outdoor atmosphere of sulfur oxides, expressed as $SO_2$ from any combustion unit, at any time, in excess of the applicable rate in pounds per million BTU of heat input specified in the following table:

| Rated Capacity of Unit in $10^6$ BTU's per hour | Inner Zone | Outer Zone |
|---|---|---|
| less than 250 | 1.0 | 1.2 |
| greater than or equal to 250 | 0.6 | 1.2 |

(2) Commercial fuel oil. No person shall, at any time, offer for sale, deliver for use, exchange in trade, cause the use of, suffer the use of, or permit the use of commercial fuel oil for use in combustion units in the Southeast Pennsylvania air basin which contains sulfur in excess of the applicable percentages by weight set forth in the following table:

| Grades of Commercial Fuel Oil | Inner Zone | Outer Zone |
|---|---|---|
| No. 2 and Lighter (SSU viscosity less than or equal to 45) | 0.2% | 0.3% |
| No. 4, No. 5, No. 6, and Heavier (SSU viscosity greater than 45) | 0.5% | 1.0% |

(3) Noncommercial fuels. No person shall cause, suffer or permit the emission into the outdoor atmosphere of sulfur oxides, expressed as $SO_2$, from any combustion unit being noncommercial fuel at any time in excess of the rate of 0.6 pounds per million BTU of heat input in the inner zone or 1.2 pounds per million BTU of heat input in the outer zone. Any person using a mixture of noncommercial and commercial fuel in a combustion unit shall comply with the provisions of this paragraph and shall also comply with the provisions of paragraph (2) of this subsection.

(4) Equivalency provision. For those installations where equipment or processes are used to reduce the emissions from the burning of fuel oils with a higher sulfur content than that specified in paragraph (2) of this subsection, the emissions shall not exceed those which would result from the use of the fuels specified in paragraph (2) of this subsection.

(d) Other units. This subsection shall apply to all combustion units not subject to the provisions of subsections (a), (b) and (c) of this section. No person shall cause, suffer, or permit the emission into the outdoor atmosphere of sulfur oxides, expressed as $SO_2$, from any combustion unit, at any time, in excess of the rate of four pounds per million BTU of heat input.

(e) Allowable emissions. Allowable emissions under this section are graphically indicated in Appendix D of this Chapter.

### 123.23 By-product coke oven gas.

(a) No person shall cause, suffer or permit the emission of by-product coke oven gas into the outdoor atmosphere unless such gas is first burned.

(b) No person shall cause, suffer or permit the flaring or combustion of any coke oven by-product gas that contains sulfur compounds, measured as hydrogen sulfide, in concentrations greater than 50 grains per 100 dry standard cubic feet.

123.24 Primary Zinc Smelters.

(a) No person shall cause, suffer or permit the emission into the outdoor atmosphere of sulfur oxides, from any zinc roasting operation in such a manner that the concentration of sulfur oxides, expressed as $SO_2$ in the effluent gas exceeds 500 parts per million by volume (dry basis) calculated as a two-hour moving average.

(b) No person shall cause, suffer or permit the emission into the outdoor atmosphere of sulfur oxides, from any zinc sintering operation at any time in excess of the rate calculated by the following formula:

Y = 0.054X where:
X = Calcine feed rate to the sinter plant (lbs./hr)
Y = Allowable sulfur oxide emissions (lbs./hr)

## ODOR EMISSIONS

123.25. Monitoring Requirements.

(a) This section shall apply to all combustion units specified in 123.22 (a) (4), (b)(4), (c)(4), or (d)(5) of this Title.

(b) All combustion units subject to the provision of this section shall install, operate, and maintain continuous $SO_2$ monitoring devices in compliance with the requirements of Chapter 139 of this Title. Results shall be submitted to the Department on a regular basis in compliance with the requirements of Chapter 139 of this Title.

123.31 Limitations

(a) (1) No person shall cause, suffer, or permit, at any time, any emissions from the following processes unless the emissions have been incinerated at at least 1200°F for at least 0.3 seconds prior to their emissions into the outdoor atmosphere. Chip dryers, animal blood dryers, asphalt roof manufacture, brake shoe debonding operations, core ovens, rendering cookers, varnish cookers, paint-baking ovens, meat smokehouses other than those in single family farms, plastic curing ovens, fabric-backing and fabric coating baking ovens, ovens for curing of binders in mineral wool production, meat processing other than in single family farms, tear gas manufacture and sources of hydrogen sulfide or mercaptans.

(2) Techniques other than incineration may be used to comply with the provisions of Clause (1) of this subsection if it is shown to the satisfaction of the Department that such techniques are equivalent to or better than the required incineration in terms of control of the odor emissions.

(b) No person shall cause, suffer, or permit the emission into the outdoor atmosphere of any malodorous air contaminants from any source whatsoever, including those in compliance with the provisions of subsection (a) of this section, in such a manner that the malodors are detectable beyond the person's property.

(c) The prohibition in subsection (b) of this section shall not apply to odor emissions arising from the production of agricultural commodities in their unmanufactured state on the premises of the farm operation.

## VISIBLE EMISSIONS

### 123.41 Limitations.

No person shall cause, suffer, or permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is:

(1) Equal to or greater than 20% for a period or periods aggregating more than 3 minutes in any one hour; or

(2) Equal to or greater than 60% at any time.

### 123.42 Exceptions.

The limitations of 123.41 of this Title (relating to limitations on visible emissions) shall not apply to any visible emission:

(1) When the presence of uncombined water is the only reason for failure of the emission to meet the limitations;

(2) Resulting from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions; and

(3) From sources specified in items (1) through (9) of 123.1 (a) of this Title (relating to permitted fugitive emissions).

(4) When arising from the production of agricultural commodities in their unmanufactured state on the premises of the farm operation.

### 123.43 Measuring techniques.

Visible emissions may be measured using:

(1) Any device approved by the Department and maintained to provide accurate opacity measurements; or

(2) Observers, trained and qualified to measure plume opacity with the naked eye or with the aid of any devices approved by the Department.

### 123.44 Limitations of visible fugitive air contaminants from operation of any coke oven battery.

(a) No person shall cause, suffer, or permit the operation of a coke oven battery in such a manner that visible fugitive air contaminants are emitted in excess of the emissions allowed by the following limitations:

(1) The following open charging limitation applies to all existing batteries listed in 121.1 of this Title (relating to definitions) except Jones and Laughlin's A-5 battery at Aliquippa. The following closed charging limitation applies to the A-5 battery at Aliquippa and any other existing battery on which a closed charging system is installed.

(i) Open charging: At no time shall the aggregated times of visible open charging emissions during any four consecutive charges equal more than 75 seconds.

(ii) Closed charging: At no time shall there be closed charging emissions during more than one charge out of any ten consecutive charges.

(2) At no time shall door area emissions from any coke oven exceed 40% opacity 15 minutes or longer after the last charge to that oven.

(3) At no time shall there be any visible door area emissions from more than 10% of the door areas of operating coke ovens, excluding the two door areas representing the last oven charged on any battery and any door areas obstructed from view.

(4) At no time shall there be visible topside emissions from more than 2.0% of the charging port seals on operating coke ovens in any battery, excluding visible emissions from no more than three ovens which may be dampered off.

(5) At no time shall there be topside emissions from more than 5.0% of the offtake piping on operating coke ovens in any battery, excluding visible emissions from open standpipe caps on no more than three ovens which may be dampered off.

(6) At no time shall there be any topside emissions from any point on the topside other than allowed emissions from charging port seals and offtake piping pursuant to paragraphs (4) and (5) of this subsection.

(7) At no time shall there be any visible emissions from the coke oven gas collector main.

(b) The following techniques shall be used for measuring and recording visible fugitive air contaminants from any coke oven battery:

(1) Observations of open and closed charging emissions shall be made from any point or points on the topside of a coke oven battery from which an observer can obtain an unobstructed view of the charging operation. The observer will determine and record the total number of seconds that charging emissions are visible during the charging of coal to the coke oven. The observer shall time the visible charging emissions with a

stopwatch while observing the charging operation. Simultaneous emissions from more than one emission point shall be timed and recorded as one emission and shall not be added individually to the total time. Open charging emissions shall not include any emissions observed after all the charging port covers have been firmly seated following the removal of the larry car, such as emissions occurring when a cover is temporarily removed to permit the sweep-in of spilled coal. The total number of seconds of visible emissions observed, clock time for the initiation and completion of the charging operation, battery identification, and oven number for each charge shall be recorded by the observer. In the event that observations of emissions from a charge are interrupted due to events beyond the control of the observer, the data from that charge shall be invalidated and the observer shall note on his observation sheet the reason for invalidating the data. The observer shall then resume observation of the next consecutive charge, or charges, and continue until he has obtained a set of four charges for comparison with the emission standard. Compliance with subsection (a)(1) of this section shall be determined by summing the seconds of charging emissions observed during each of the four charges.

(2) Observations of door area emissions for the purpose of determining compliance with subsection (a)(2) of this section shall be made at a point above the top of the door but below the battery top, or at the top of any local door area emission control hood. The observer shall place himself no less than 25 feet from the face of the door in a location where his view of the door area is unobstructed.

(3) Observations of door area emissions for determining compliance with subsection (a)(3) of this section shall be made from a minimum distance of 25 feet from each door. Each door area shall be observed in sequence for only that period necessary to determine whether or not, at the time, there are visible emissions from any point on the door area while the observer walks along the side of the battery. If the observer's view of a door area is more than momentarily obstructed, as, for example, by door machinery, pushing machinery, coke guide, luter truck, or opaque steam plumes, he shall record the door area(s) obstructed and the nature of the obstruction, and continue the observations with the next door area in sequence which is not obstructed. The observer shall continue this procedure along the entire length of the battery for both sides and shall record the battery identification, battery side, and oven door identification number of each door area exhibiting visible emissions. Compliance with subsection (a)(3) of this section shall be calculated by application of the following formula, which excludes two door areas representing the last oven charged from the numerator and obstructed door areas from the denominator:

$$\frac{(\text{\# of door areas with visible emissions} \quad - 2}{(\text{\# of door areas on operating ovens in the battery} \quad - \quad (\text{\# of door areas obstructed from view})} \mathrm{x}(100) = 10\% \text{ or less.}$$

(4) Observations of any visible emissions from a coke oven topside, other than emissions from the topside defined as open or closed charging emissions or pushing emissions, shall be made and recorded during the time an observer walks the topside of a battery from one end to the other, including such time as may be necessary to determine whether an observed emission is emanating from the offtake piping. Each oven shall be observed in sequence. The observer shall record the battery identification, the points of topside emission from each oven, the oven number, and whether an oven was dampered off. Compliance with subsection (a)(4) of this section shall be determined by application of the following formula:

$$\frac{(\text{\# of charging ports with visible emissions}) - (\text{\# of charging ports with visible emissions on dampered off ovens, not to exceed three ovens})}{(\text{\# of charging ports on operating ovens}) - (\text{\# of charging ports on dampered off ovens, not to exceed three ovens})} \text{x}(100) = 2\% \text{ or less.}$$

Compliance with subsection (a)(5) of this section shall be determined by application of the following formula:

$$\frac{(\text{\# of off-take piping with visible emissions}) - (\text{\# of off-take piping with visible emissions on dampered off ovens, not to exceed three ovens})}{(\text{\# of off-take piping on operating ovens}) - (\text{\# of off-take piping on dampered off ovens, not to exceed three ovens})} \text{x}(100) = 5\% \text{ or less.}$$

# FIGURE 1

PARTICULATE MATTER-COMBUSTION UNITS

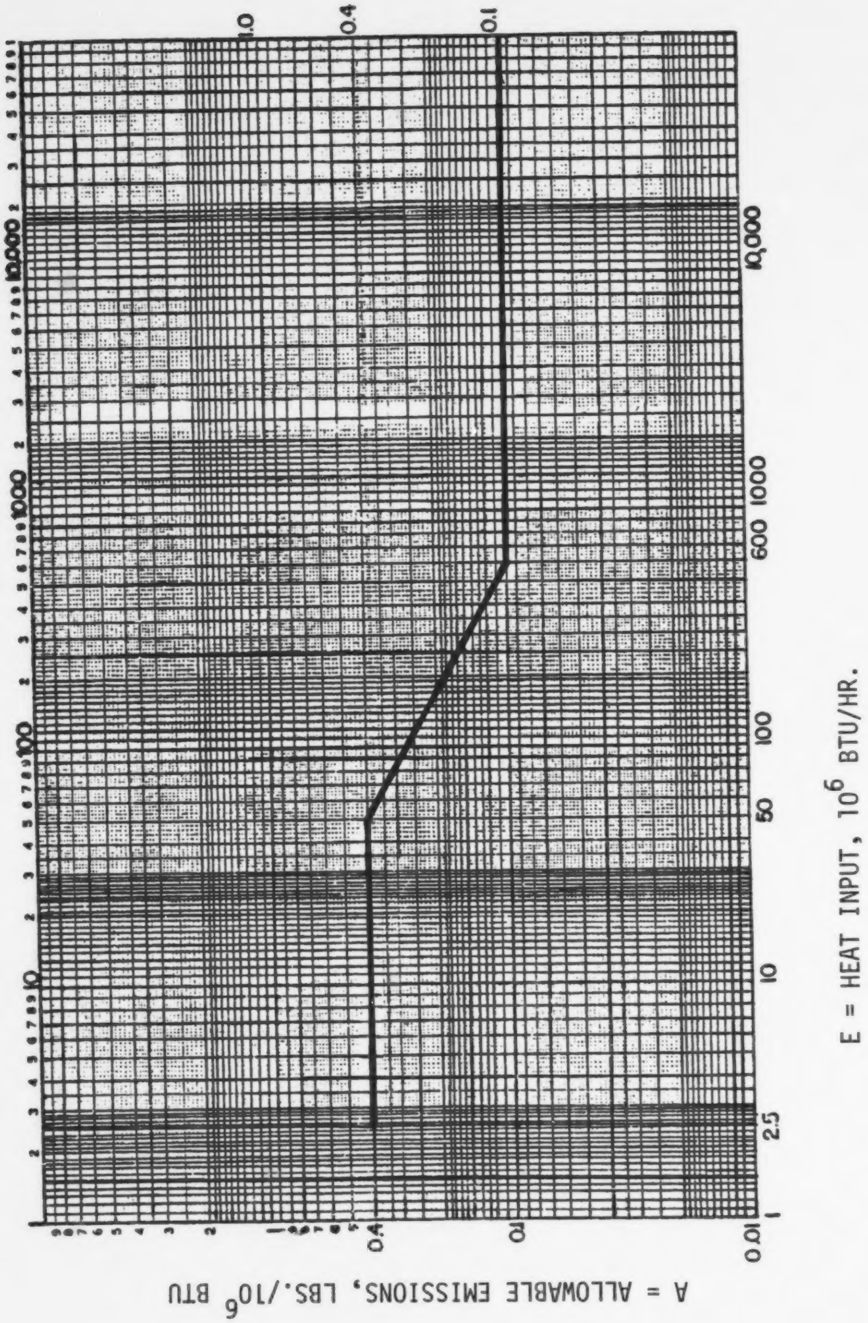
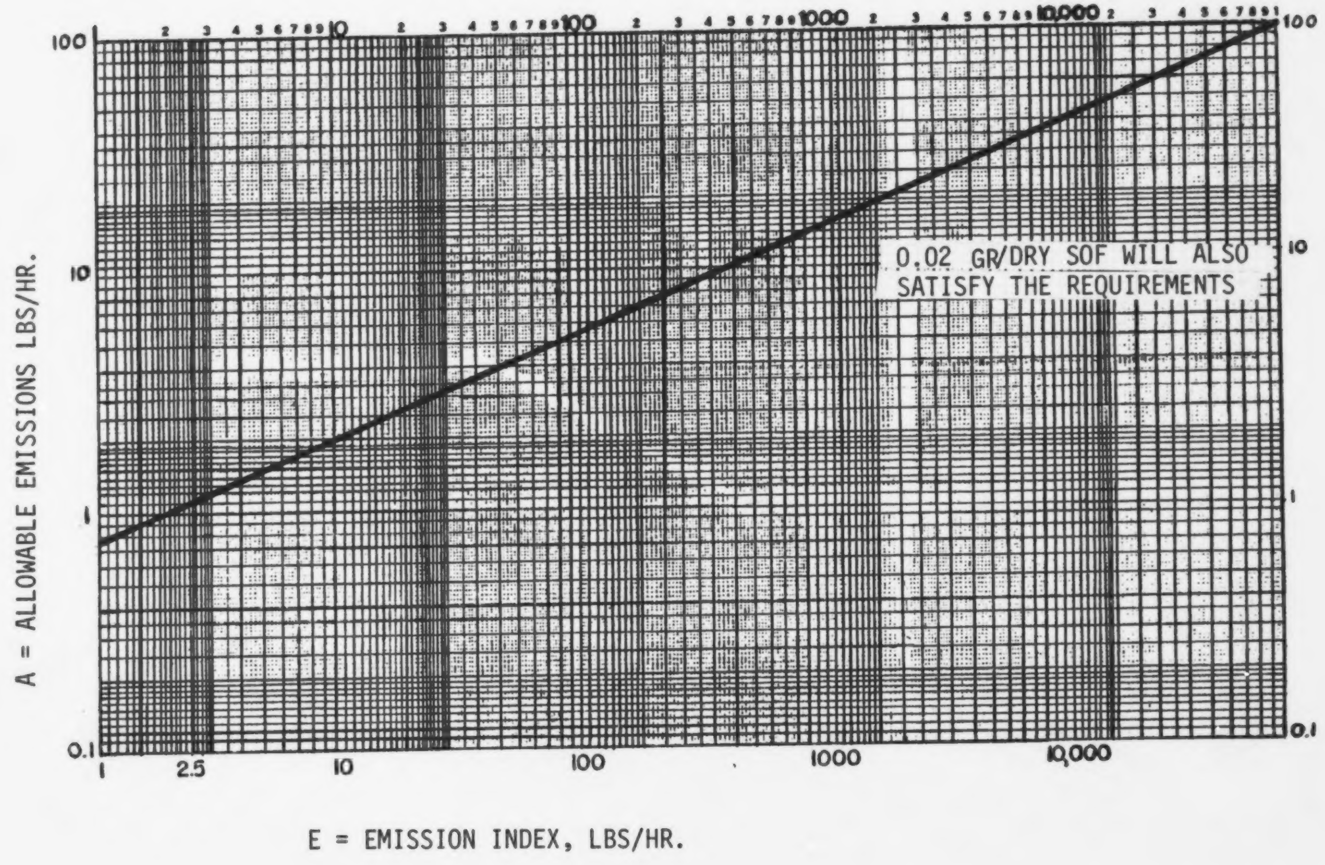


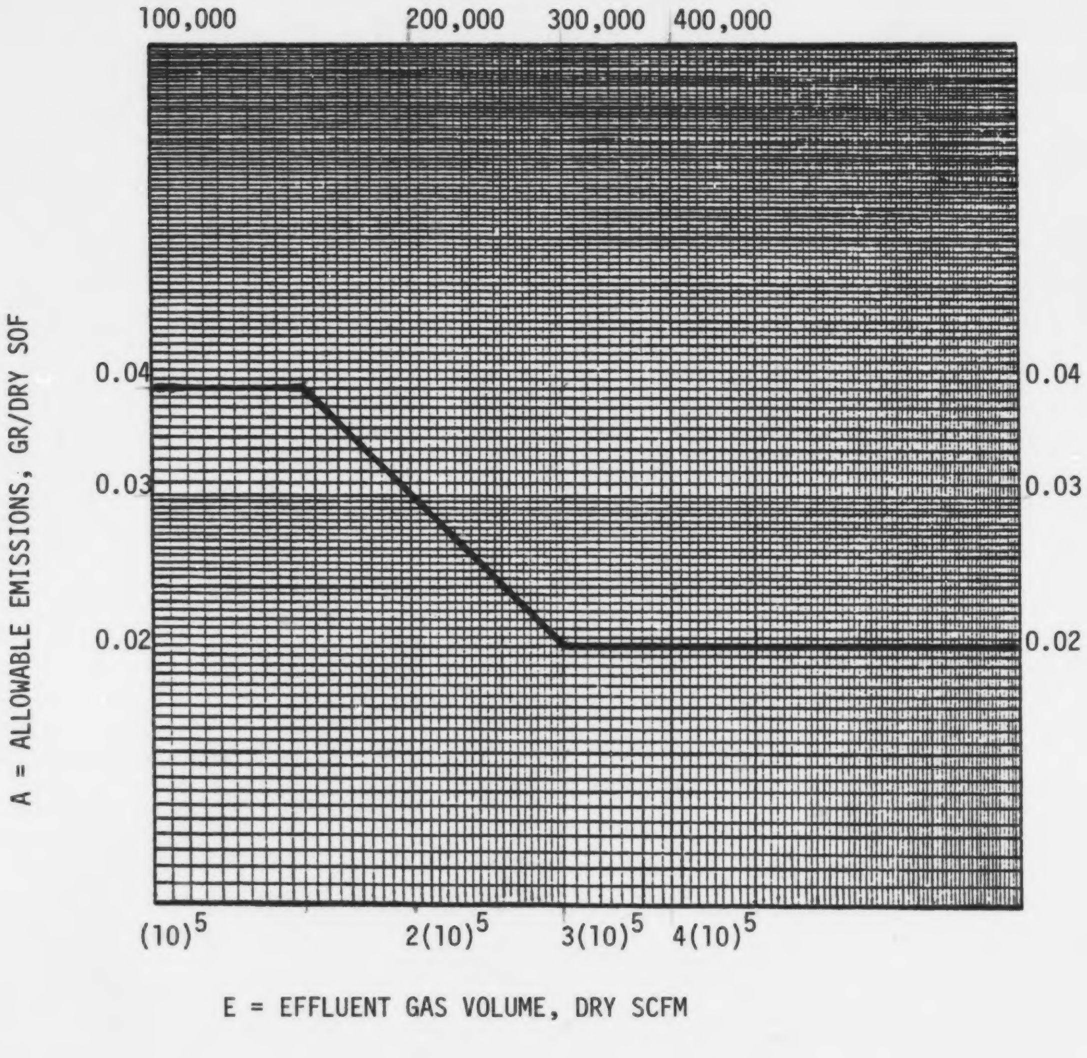
FIGURE 2

PARTICULATE MATTER - PROCESSES LISTED IN TABLE 1



## FIGURE 3

### PARTICULATE MATTER - PROCESSES NOT LISTED IN TABLE 1



# CHAPTER 127. CONSTRUCTION, MODIFICATION, REACTIVATION AND OPERATION OF SOURCES

## GENERAL

### 127.1 Purpose.

It is intended that by the application of the provisions of this Article, air quality shall be maintained at existing levels in those areas where the existing ambient air quality is better than the applicable ambient air quality standards, and that air quality shall be improved to achieve the applicable ambient air quality standards in those areas where the existing air quality is worse than the applicable ambient air quality standards. In accordance with this intent it is the purpose of this Chapter to insure that all new sources shall conform to the applicable standards of this Article and that they shall not result in producing ambient air contaminant concentrations in excess of those specified in Chapter 131 of this Title (relating to ambient air quality standards). It is further the intent of this Chapter to insure that in those areas of this Commonwealth where concentrations of air contaminants are significantly lower than those specified in Chapter 131 of this Title (relating to ambient air quality standards), new sources shall not be established unless it is affirmatively demonstrated that:

(1) The establishment of such new sources is justifiable as a result of necessary economic or social development;

(2) Such new sources shall not result in the creation of air pollution as defined in section 3 of the act (35 P.S. 4003);

(3) Such new sources shall conform to all applicable standards of this Article;

(4) Such new sources shall not result in the creation of ambient air contaminant concentrations in excess of those specified in Chapter 131 of this Title (relating to ambient air quality standards); and

(5) Such new sources shall control the emission of air pollutants to the maximum extent, consistent with the best available technology.

## PLAN APPROVAL

### 127.11 Requirements.

No person shall cause, suffer, or permit the construction or modification of any air contamination source or the reactivation of any air contamination source after said source has been out of operation or production for a period of one year or more, or the installation of any air cleaning device on any air contamination source, unless such construction, modification, reactivation or installation has been approved by the Department.

127.12 Content of applications.

(a) Applications for approval shall:

(1) Identify the location of the source.

(2) Contain such information as is requested by the Department and as is necessary to perform a thorough evaluation of the air contamination aspects of the source.

(3) Show that the source will be equipped with reasonable and adequate facilities to monitor and record the emissions of air contaminants and any operating conditions that may affect the emissions of air contaminants.

(4) Show that the source will comply with all applicable requirements of this Article and those requirements promulgated by the Administrator of the United States Environmental Protection Agency pursuant to the provisions of the Clean Air Act.

(5) Show that the emissions from a new source will be the minimum attainable through the use of the best available technology.

(6) When requested by the Department, show that the source will not prevent or adversely affect the attainment or maintenance of ambient air quality standards.

(7) Contain a plan of action for the reduction of emissions during each level specified in Chapter 137 of this Title (relating to air pollution episodes).

(b) The Department shall not approve any application unless the application meets the requirements of subsection (a) of this section. Any approval may be granted with appropriate conditions.

127.13 Extensions.

Any approval granted by the Department shall be valid for a limited period of time, specified by the Department in the approval. At the end of such time, if the construction, modification, reactivation or installation has not been completed, a new approval or an extension of the previous approval shall be required. The Department shall not grant any extension unless the application for and the conditions on the previous approval were such that any new approval would be essentially a duplication of the previous approval.

127.14 Exemptions.

Approval shall not be required for the construction, modification, reactivation or installation of:

(1) Air conditioning or ventilation systems not designed to remove pollutants generated by or released from other sources.

(2) Combustion units rated at 2,500,000 or less BTU per hour of heat input.

(3) Combustion units fueled by natural gas supplied by a public utility and used only for space heating, air conditioning or heating water.

(4) Sources used in residential premises designed to house four or less families.

(5) Space heaters that heat by direct heat transfer.

(6) Mobile sources.

(7) Laboratory equipment used exclusively for chemical or physical analyses.

(8) Other sources and classes of sources determined to be of minor significance by the Department.

## PERMIT TO OPERATE

127.21 Requirements.

No person shall cause, suffer, or permit the operation of any source the construction, modification or reactivation of which, or the installation of air cleaning device on which, is subject to the provisions of 127.11 of this Title (relating to requirements for plan approval), unless the Department has issued a permit to operate such source.

127.22 Content of applications.

(a) Applications for permits shall:

(1) Contain the name, title, address and telephone number of the individual responsible for the operation of the source.

(2) Contain such information as is requested by the Department and as is necessary to perform a thorough evaluation of the air contamination aspects of the source.

(3) Show that the construction, modification, reactivation or installation has been completed in accordance with the approval.

(4) Show that the source is equipped with reasonable and adequate facilities to monitor and record the emissions of air contaminants and any operating conditions that may affect the emissions of air contaminants, that such records are being and will continue to be maintained and that such records will be submitted to the Department at specified intervals or upon request.

(5) Show that the source is, is capable of being and will continue to be in compliance with all the applicable requirements of this Article and those requirements promulgated by the Administrator of the United States Environmental Protection Agency pursuant to the provisions of the Clean Air Act.

(6) Show that the emissions from a new source are the minimum attainable through the use of best available technology.

(7) When requested by the Department, show that the source is being, is capable of being, and will continue to be operated in such a manner as not to cause any violation of the ambient air quality standards.

(8) Show that the source and the air cleaning devices are being, are capable of being, and will continue to be operated and maintained in accordance with good air pollution control practices.

(b) The Department shall not issue any permit unless the application meets the requirements of subsection (a) of this section. Any permit may be granted with appropriate conditions.

### 127.23 Temporary permits.

(a) The Department may issue temporary permits to facilitate shakedown of sources and air cleaning devices, to permit operations pending the issuance of permits specified in 127.21 of this Title (relating to permit requirements), or to permit the evaluation of the air contamination aspects of the source.

(b) Any temporary permit issued shall be valid for a limited period of time, not to exceed 60 days, but may be extended for additional limited periods each not to exceed 60 days.

(c) No temporary permit shall be issued or extended which may circumvent the requirements of this Chapter.

### 127.24 Extensions.

Any permit issued by the Department shall be valid for a limited period of time, specified by the Department in the permit. Before the expiration of the permit, a new permit or an extension of the previous permit shall be obtained for continued operation of the source. The Department shall not grant any extension unless the application for and the conditions on the previous permit were such that any new permit would be essentially a duplication of the previous permit.

## MISCELLANEOUS PROVISIONS

### 127.31 Procedure for denying, revoking or suspending an approval or a permit.

(a) Whenever the Department intends to take action to disapprove plans submitted to it, or to deny, revoke or suspend any approval or permit, it shall notify the person involved, in writing, of its intention setting forth the reasons for its action.

(b) If, within 30 days of the issuance of such notification, the person files with the Board a request for a hearing and complies with the provisions of 121.6 of this Title (relating to requests for hearings), the Board shall thereafter schedule a hearing to review the action of the Department and thereafter enter an adjudication either affirming, reversing or modifying the action of the Department.

(c) If, however, no appeal has been filed within the 30-day period, the approval shall be denied, or application for permit shall be refused, or the approval or permit shall be revoked or suspended, as the case may be.

### 127.32 Transfer of approvals and permits.

(a) No approval or permit shall be transferred from one person to another.

(b) Any approval or permit shall be valid only for that specific source and that specific location of the source as described in the application and shall not be valid for any other source or location of the source.

### 127.33 Notice of sale of equipment.

(a) Any person who sells or distributes within this Commonwealth any air cleaning device or source subject to the provisions of 127.11 of this Title (relating to requirements for plan approval), shall, within five (5) days of the sale thereof, file with the Department a notice of sale which shall include:

(1) Name and address of purchaser.

(2) Brief description of article sold and its function and where it is to be installed.

(3) The specific terms and provisions of any and all warranties given to the purchaser.

(4) Signature of the person making the sale.

(5) Date of sale.

(b) Failure to file a notice of sale as required by subsection (a) of this section or the misrepresentation of any information contained in any such notice shall constitute a violation of this section.

# CHAPTER 127. CONSTRUCTION, MODIFICATION, REACTIVATION AND OPERATION OF SOURCES

## Subchapter B. COKE OVEN BATTERY ABATEMENT PLANS

### 127.41 Abatement of coke oven battery emissions.

On the date 123.44 and 129.15 become effective, any person responsible for the operation of a coke oven battery shall cease operation of any battery which fails to comply with any emission standard contained in 123.44(a)(1)-(7) (relating to limitations of visible fugitive air contaminants from operation of any coke oven battery), 123.13(b) (relating to processes) and 129.15 (relating to coke pushing operations) or 123.13(c) (relating to processes) and 123.41 (relating to limitations) of this Title with respect to emissions from the waste heat stack; provided, however, that such person shall be relieved of the duty to comply with this section if approval from the Department is obtained for an abatement plan and deferred compliance schedule pursuant to 127.42-127.52 of this Title (relating to coke oven battery abatement plans).

### 127.42 Deferred compliance with revised emission limitations for coke oven batteries.

(a) Upon petition from any person responsible for the operation of a coke oven battery, the Department may, by order, establish a deferred compliance schedule for attaining compliance with any emission standard contained in 123.44(a)(1)-(7) of this Title (relating to notice of filing) with respect to visible fugitive emissions, 123.13(b) (relating to processes) and 129.15 (relating to coke pushing operations) of this Title with respect to emissions from coke pushing operations, or 123.13(c) (relating to processes) and 123.41 (relating to limitations) of this Title with respect to emissions from the waste heat stack at existing coke oven batteries. The petitioner shall not be relieved of the duty to comply with 127.41 of this Title (relating to abatement of coke oven battery emissions) until after an order issued pursuant to this section becomes final.

(b) An order establishing a deferred compliance schedule for any coke oven battery may be issued to any petitioner therefor, provided the Department finds, upon a showing of the petitioner, that implementation of the abatement plan submitted pursuant to 127.43(b) of this Title (relating to petitions for order granting a deferred compliance schedule) for any coke oven battery will:

(1) achieve compliance with the emission limitations listed in subsection (a) of this section at such coke oven battery as expeditiously as possible but in no event later than December 31, 1979; and

(2) control or reduce emissions from each coke oven battery to such a degree that the operation of one or more coke oven batteries at any coke plant will not cause air pollution which presents a substantial

risk of endangering the public health and welfare prior to the date proposed by the petitioner for final compliance with the emission limitations listed in subsection (a) of this section.

(c) Effective on the date when an order establishing a deferred compliance schedule becomes final, the recipient thereof shall be relieved of the duty to comply with 127.41 of this Title (relating to abatement of coke oven battery emissions) and any emission standard contained in 123.44 (relating to limitations of visible fugitive air contaminants from operation of any coke oven battery) or 129.15 (relating to coke pushing operations) of this Title for which a schedule of compliance is established by said order until the date for final compliance provided for therein. Relief from the duty to comply with said sections which is granted by a final order establishing a deferred compliance schedule shall terminate in the event the recipient fails to comply with the requirements of said order.

(d) In each case, the Department will publish notice of the receipt of a petition in the Pennsylvania Bulletin.

127.45 Contents of notice.

The advertisement of notice of filing required by 127.44 of this Title (relating to notice of filing) shall include the following:

(1) Name and address of petitioner.

(2) Location and name of the plant or facility at which each coke oven battery is located.

(3) The specific emission standard(s) for which a deferred compliance schedule is sought.

(4) A brief statement of the reasons why a deferred compliance schedule, as petitioned for, is necessary.

(5) A statement that any person may oppose the petition for the deferred compliance schedule by filing a written protest with the Department of Environmental Resources, Bureau of Air Quality and Noise Control, Division of Abatement and Compliance, Box 2063, Harrisburg, Pennsylvania 17120.

127.46 Filing protests.

(a) A protest to a petition for a deferred compliance schedule shall be filed with the Department in duplicate within 30 days of the day that notice of the receipt of such petition was published pursuant to 127.44(c) of this Title (relating to notice of filing).

(b) Each protest shall include the following:

(1) Name, address, and telephone number of the person filing such protest.

(2) Identification of the petition being opposed.

(3) Concise statement of the objections to the petition.

(4) Concise statement of the relevant facts upon which the objections are based.

(5) Name and date of publication alerting such person of the filing of the petition.

127.47 Consideration of protest.

(a) A protest is intended solely to alert the Department to the fact and nature of the objection of the protestant to the petition.

(b) The Department will not be required to consider protests filed subsequent to the time designated in 127.46 of this Title (relating to filing of protests), but it may consider them if filed prior to action on the petition.

(c) It will not be necessary for the Department to respond to any protest filed.

127.48 Conferences and hearings.

(a) Prior to taking action on any petition for a deferred compliance schedule, the Department may, in its discretion, hold a fact finding conference or hearing at which the petitioner, and any person who has properly filed a protest pursuant to 127.46 of this Title (relating to filing protests) may appear and give testimony; provided, however, that in no event will the Department be required to hold such a conference or hearing.

(b) The petitioner, protestant, and other participants will be notified of the time, place, and purpose of a conference or hearing, in writing or by publication in a newspaper or the Pennsylvania Bulletin, except where the Department determines that notification by telephone will be sufficient.

127.49 Informal hearing procedure.

(a) All conferences and hearings shall be conducted by a presiding officer.

(b) Except where provided otherwise in the notice or by the presiding officer, all conferences and hearings shall be conducted in an informal manner and the rules of evidence shall not be applicable.

(c) When provided in the notice, each participant may be required to present a written statement, together with any exhibits required, at the conference or hearing for the use of the participants. Persons unable to attend the conference or hearing may submit three copies of a written statement and exhibits within five days thereafter.

(d) At any such conference or hearing, any participant, at his or her own cost, shall have the right to have the proceedings recorded verbatim by a stenographer, tape recorder, or other means.

127.50 Informal hearing record.

(a) Following the conference or hearing, the presiding officer shall prepare a summary which shall contain the following:

(1) Identification of the petition and location of the subject coke oven battery.

(2) Names and addresses of each participant and whom the participant represents.

(3) Substance of opening and closing statement by presiding officer.

(4) Substance of the matters discussed or testified to and any agreements entered into by any of the participants.

(5) Such other relevant matters to inform the Department of the results of the conference or hearing.

(b) A copy of the summary shall be submitted upon request to each participant in the proceeding. Copies of the summary, together with any transcript of the proceedings, written statements, exhibits, and protests will also be placed in the file in the appropriate office or offices in the Department for review by the Department prior to taking action on the petition.

127.51 Actions on a petition.

(a) After reviewing the petition and any protests or record of any conference or hearing held, the Department may take such action as shall be authorized by 127.42 of this Title (relating to deferred compliance with revised emission limitations for coke oven batteries).

(b) Favorable action of the Department on all or part of any petition which complies with the requirements of 127.42 and 127.43 of this Title (relating to deferred compliance with revised emission limitations for coke oven batteries and petitions for order granting a deferred compliance schedule) will be contained in a written order requiring the petitioner to implement the approved portions of his abatement plan on or before the dates specified therein.

(c) A notice denying or an order granting any petition for a deferred compliance schedule, in whole or in part, will be served upon the petitioner and each protestant who has complied with 127.46 of this Title (relating to filing protests), personally or by mailing a copy to the address set forth in the petition or protest.

(d) The Department may also publish notice of its action in the Pennsylvania Bulletin which shall be deemed notice to any person except a petitioner or protestant. Such notice shall be effective as of the date of publication of such notice.

### 127.52 Existing air pollution abatement orders governing coke oven emissions.

(a) Any order, approved abatement plan, plan approval, or permit in effect prior to the effective date of this Subchapter and issued for the abatement of air pollution or the reduction of emissions from any existing coke oven battery identified in 121.1 of this Title (relating to definitions) shall continue in full force and effect unless withdrawn or modified by the Department on its own motion or pursuant to subsection (c) of this section; provided, however, no such order, approved abatement plan, plan approval, permit, stipulation or agreement entered into by the Department shall be construed so as to relieve any person from the duty to comply with all standards limiting the emission of air contaminants from coke oven batteries and with 127.41 of this Title (relating to abatement of coke oven battery emissions) unless it is accepted by the Department as all or part of a deferred compliance schedule approved pursuant to 127.42 of this Title (relating to deferred compliance with revised emission limitations for coke oven batteries).

(b) When acting on a petition for a deferred compliance schedule filed pursuant to 127.43 of this Title (relating to petitions for order granting a deferred compliance schedule), the Department may waive the requirements of subsection (b)(5), (6), and (7) of such section and of 127.44(a) of this Title (relating to notice of filing) with respect to any battery if the Department finds:

(1) an approved air pollution abatement plan for such coke oven battery is in effect pursuant to an order of the Department issued prior to the effective date of this Subchapter; and

(2) the approved air pollution abatement plan in effect for such coke oven battery complies with the requirements of 127.42(b) of this Title (relating to deferred compliance with revised emission limitations for coke oven batteries).

(c) If the Department issues an order establishing a deferred compliance schedule for any coke oven battery for which an approved abatement plan is in effect pursuant to an order issued prior to the effective date of this section, any provisions and obligations contained in such prior order which are not incorporated into the order establishing a deferred compliance schedule shall become void and of no further effect after the order issued pursuant to this subchapter becomes final.

## CHAPTER 127. CONSTRUCTION, MODIFICATION, REACTIVIATION AND OPERATION OF SOURCES

## SUBCHAPTER C

## SPECIAL PERMIT REQUIREMENTS FOR SOURCES LOCATING IN OR SIGNIFICANTLY IMPACTING NONATTAINMENT AREAS

### § 127.61. General Requirements.

No person shall cause, suffer, or permit the construction or modification of any air contamination source in a nonattainment area or significantly impacting a nonattainment area unless the Department or approved local air pollution control agency has determined that the additional requirements of this Subchapter have been met.

### § 127.62. Effective Date.

These special permit requirements shall apply to sources submitting complete plan approval applications to the Department after June 30, 1979 and until such time as a given nonattainment area is redesignated as an unclassifiable or attainment area. After any such redesignation, any special permit conditions shall be effective until such time as the Department modifies the permit.

### 127.63 Sources subject to special permit requirements.

Sources with potential emissions equal to or greater than 100 tons per year and meeting the additional requirements of subsections (a) and (b) and facilities identified in subsection (c) shall br subject to these special permit requirements.

(a) Particulate and $SO_x$: Any major modification to an existing source or any new source with maximum allowable emissions greater than 50 tons per year, 1,000 pounds per day or loo pounds per hour, whichever is more restrictive, to be located in the following areas:

(1) nonattainment areas, or

(2) attainment and unclassifiable areas which impact any part of a nonattainment area in excess of the following significance levels.

AMBIENT TOTAL SUSPENDED PARTICULATE AND $SO_2$

| AVERAGING PERIOD | SIGNIFICANCE LEVELS |
|---|---|
| Annual | > 1.00 $\mu g/m^3$ |
| 24-hour | > 5.00 $\mu g/m^3$ |
| 3-hour | > 25.00 $\mu g/m^3$* |

*$SO_2$ only

(b) Volatile organic compound: Any major modification to an existing source or any new source with maximum allowable emissions greater than 150 tons per year, 1,000 pounds per day or 100 pounds per hour, whichever is more restrictive, to be located in the following counties:

Allegheny
Armstrong
Beaver
Berks
Bucks
Butler
Chester
Cumberland
Dauphin
Delaware
Lackawanna
Lancaster
Lebanon
Lehigh
Luzerne
Montgomery
Northampton
Philadelphia
Washington
Westmoreland
York

**(c) Any facility where modifications to existing sources or construction of new sources, which individually do not exceed the maximum allowable emission levels specified in Subsections (a) and (b), but the aggregate of maximum allowable emissions, in plan approval applications submitted to and approved by the Department after June 30, 1979 (and not previously subject to the conditions of this Subsection), will exceed the maximum allowable emission levels or significance levels specified in Subsections (a) and (b). When the maximum allowable emissions exceed such levels specified, the applicant shall comply with the special permit conditions of the Subchapter for each source for which such plan approval was issued by the Department, except that the requirement of §127.65(a) (lowest achievable emission rate) need not be met.**

§ 127.64. Applicable Emissions.

**In determining whether a source exceeds the emission rates or significance levels specified in §127.63 of this Title, all emissions resulting from the source's operation must be considered. This includes emissions from the following: flue emissions (stack) and additional fugitive emissions (material transfer, parking lots and paved and unpaved roads on the plant property, storage piles, etc.) resulting from operation of the new or modified source.**

§ 127.65. Special Permit Requirements.

The Department shall not issue any plan approval or operating permit unless the application demonstrates that the following requirements are met:

(a) The new or modified source subject to this Subchapter shall comply with the lowest achievable emission rate.

(b) All existing sources with potential emissions equal to or greater than 100 tons per year owned or operated by the applicant within Pennsylvania must be in compliance or on a schedule approved by the Department for compliance with all applicable emission limitations and standards contained in Article III of this Title.

**(c) The maximum allowable emissions from any source subject to §127.63 of this Title must be offset by emission reductions from existing sources or emission offset credits (banked in accordance with §127.67 of this Title) in the nonattainment area or from a source impacting the nonattainment area in accordance with the following:**

**(1) A source which is a new source as defined by "new source (i)" of §121.1 of this Title must offset all the maximum allowable emissions in accordance with §127.66 of this Title.**

(2) A source which is a new source as defined by "new source (ii)" of §121.1 of this Title or which is either a "modification" or "major modification" as defined by §121.1 of this Title must offset any emissions in excess of the emission limitations prior to such modification. The allowable emission rate pursuant to the emission limitations in Chapter 123 and 129 of a permit limitation, whichever is more restrictive, shall be the basis for determining the emission limitation prior to modification.

(d) Particulate and $SO_x$ emission offsets required under this Subchapter must have an ambient air quality impact comparable to that of the new or modified source. In the event that the application does not demonstrate a comparable ambient air quality impact, the Department may require that the applicant obtain offsets from other sources to be used for the emission offset or that the proposed emission reductions be increased, to provide the necessary comparable ambient air quality impact.

§ 127.66. Emission Offset Conditions.

(a) The emission offset required by §127.65(c) shall meet the following conditions:

(1) The ratio of actual emission reductions to new emissions must be equal to or greater than the ratio specified in the following table:

REQUIRED EMISSION REDUCTIONS FROM EXISTING SOURCES

| | Flue Emissions | Fugitive Emissions |
|---|---|---|
| Particulate Matter and $SO_x$ | | |
| Primary Nonattainment Areas | 1.3:1 | 5:1 |
| Secondary Nonattainment Areas | 1.1:1 | 3:1 |
| Volatile Organic Compounds | | |
| Primary Nonattainment Areas | 1.3:1 | 1.3:1 |

(2) Any emssion reduction must be based on the emission characteristics for the actual operating conditions of the existing source or sources used to achieve the emission offset averaged over the three calendar years immediately proceeding the date of plan approval application. Whenever the Department determines that this three year period is not representative of the existing source's most recent emission characteristic, the Department may specify a different period. If the existing source has been in operation for less than three years, the Department shall determine the emission reductions, based on a representative period since the source began operation.

(3) The determination of the emission offset credit available for sources not in compliance with emission limitations or permit conditions of Article III of this Title shall be the allowable emission rate for the actual operating conditions pursuant to the emission limitations in Chapters 123 and 129 or a permit limitation, whichever is more restrictive, at the time the plan approval application is submitted.

(4) Fugitive emission control measures may be used as emission offsets.

(b) In the event new regulations are established under this Title, emission offsets from sources covered by the new regulations will not be allowed in the consideration of a plan approval application from the date the Environmental Quality Board adopts such new regulations.

(c) Only emission offsets that have been transferred directly from an existing source to the proposed source will be recognized under this Section. Transfer of emission offsets through intermediate parties cannot be applied to meet the requirements of this Section.

(d) The required offset for volatile organic compound sources should be obtained from existing sources as close as possible to the proposed source. The offset shall be obtained from a source within the planning area of the proposed source, or from a source outside the planning area if within 40 miles of the proposed source.

§ 127.67. Conditions for Banking of Emission Offsets.

(a) Emission reductions for use as offset credit and exceeding those required to offset the proposed source may be banked for use in the future by the applicant. These banked offsets may only be used as offset credit by the applicant in a plan approval application filed within a period of five years from the date of the initial plan approval application.

(b) Emission reductions from source shutdown or curtailment after June 30, 1979 may be banked for use in a plan approval application by the source owner or transferee of offset:

(1) For a period of one year after said shutdown or curtailment; and

(2) For a period of five years after said shutdown or curtailment upon petition to the Department within one year after the shutdown or curtailment to preserve the offset credit for the expressed purpose of construction and operation of specific new or modified sources identified in the petition including a schedule for timely construction or modification and operation of said source or sources.

(c) Emission reductions after June 30, 1979 resulting from improved control techniques or process improvements below current actual (but not to exceed allowable) emissions and additional fugitive emission control measures may be banked for use by the source owner or transferee of the offset:

(1) After submittal of a plan approval application under §127.11 of this Chapter documenting the emission reduction and issuance of an operating permit by the Department identifying the emission limitation for the source reflecting the emission reduction; and

(2) In a plan approval application submitted within five years after the initial issuance of a plan approval under §127.11 of this Chapter of the improved control technique or process improvement.

§ 127.68. Secondary Emissions.

(a) Secondary emissions need not be considered in determining whether the cutoffs specified in §127.63 of this Subchapter are exceeded. However, if a source is subject to these requirements on the basis of the direct emissions from the source, the conditions of §127.65 must also be met for secondary emissions.

(b) The secondary emissions must occur as a result of the operation of the proposed source subject to those special permit conditions. In addition they must be specific and well defined, must be quantifiable and must impact the same general nonattainment area.

127.69. Portable Sources.

Portable sources which will be relocated outside the nonattainment area after a two year period are exempt from the requirements of §127.65(c) and (d) of this Title.

127.70. Construction/Demolition.

(a) Emissions from construction or demolition are exempt from the requirement of §127.65 if best available control technology is used during the construction/demolition period.

(b) Construction/demolition emissions shall not be considered under §127.63 of the Chapter.

127.71 New or modified volatile organic compound sources.

For a new or modified source with potential emissions equal to or greater than 100 tons per year or any major modification to an existing source of volatile organic compound emissions, the applicant must provide an analysis of alternative sites, sizes, production processes and environmental control techniques for such proposed source which demonstrates that the benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification as required by section 172 of the Federal Clean Air Act.

127.72. Exemption.

The special permit requirements of this Subchapter shall not apply to any source which demonstrates to the satisfaction of the Department or approved local air pollution control agency that:

(1) The source would be considered an existing source under these regulations but for the fact that the fixed capital cost of new components exceeds 50% of the fixed capital cost of a comparable entirely new facility, and

(2) The primary purpose of the capital expenditure is to achieve compliance with a new, more stringent regulation than was previously applicable.

127.73. Reactivation.

Any source which has been out of operation or production for a period of one year or more shall not be subject to the requirements of §127.65(a) and 127.65(b) when the source is reactivated; however, said source shall meet all other requirements of this Chapter 127. Sources shutdown or out of operation or production for a period of less than three years may use actual emissions but not to exceed allowable emissions in accordance with 127.66(a)(3) from the same source prior to deactivation (provided the emissions have not previously been used as offset credit) as offset credit on a one for one basis instead of the ratios specified in §127.66(a)(1). Emissions in excess of those prior to deactivation must be offset in accordance with the ratio specified in §127.66(a)(1).

## CHAPTER 129. STANDARDS FOR SOURCES

### MISCELLANEOUS SOURCES

### 129.11 Nitric acid plants.

No person shall cause, suffer or permit the emission into the outdoor atmosphere, at any time, from any nitric acid production plant or facility, of nitrogen oxides, expressed as $NO_2$, in excess of the rate of 5.5 lbs. per ton of acid produced, the production being expressed as 100% $HNO_3$.

### 129.12 Sulfuric acid plants.

No person shall cause, suffer, or permit the emission into the outdoor atmosphere, at any time, from any sulfuric acid production plant or facility, of:

(1) Sulfur oxides, expressed as $SO_2$, in excess of the rate of 6.5 lbs. per ton of acid produced, or

(2) Sulfuric acid mist in excess of the rate of 0.5 lbs. per ton of acid produced, the production being expressed as 100% $H_2SO_4$.

### 129.13 Sulfur recovery plants.

(a) No person shall cause, suffer or permit the emission into the outdoor atmosphere, at any time, from any plant used for recovering elemental sulfur from gases containing sulfur compounds, or sulfur oxides, expressed as $SO_2$, in excess of the rate determined by the formula:

$A = 0.32E^{0.5}$ where:
A = Allowable emissions in lbs. of sulfur oxides per pound of sulfur compounds, expressed as S, in the feed gases, and
E = Recovery plant rating in long tons of sulfur per day.

(b) Allowable emissions under this section are graphically indicated in Figure 1 appended to this Chapter.

### 129.14 Open burning operations.

(a) Air basins. No person shall cause, suffer or permit the open burning of any material in any air basin.

(b) Outside of air basins. No person shall cause, suffer or permit the open burning of any material in any area outside of air basins in such a manner that:

(1) The emissions are visible, at any time, at the point such emissions pass outside the person's property;

(2) Malodorous air contaminants from the open burning are detectable outside the person's property;

(3) The emissions interfere with the reasonable enjoyment of life or property;

(4) The emissions cause damage to vegetation or property; or

(5) The emissions are or may be deleterious to human or animal health.

(c) Exceptions: The requirements of subsections (a) and (b) of this section shall not apply where the open burning operations result from:

(1) Any fire set to prevent or abate a fire hazard, when approved by the Department and when set by or under the supervision of a public officer.

(2) Any fire set for the purpose of instructing personnel in fire fighting, when approved by the Department.

(3) Any fire set for the prevention and control of disease or pests, when approved by the Department.

(4) Any fire set in conjunction with the production of agricultural commodities in their unmanufactured state on the premises of the farm operation.

(5) Any fire set for the purpose of burning domestic refuse, when the fire is on the premises of any structure occupied solely as a dwelling by two families or less and when such refuse results from the normal occupancy of said structure.

(6) Any fire set solely for recreational or ceremonial purposes.

(7) Any fire set solely for cooking food.

(d) Clearing and grubbing wastes.

(1) As used in this subsection the following terms shall have the following meanings:

Air curtain destructor - A mechanical device which forcefully projects a curtain of air across a pit in which open burning is being conducted so that combustion efficiency is increased and smoke and other particulate matter are contained.

Clearing and grubbing wastes - Trees, shrubs, and other native vegetation which are cleared from land during or prior to the process of construction. The term does not include demolition wastes and dirt laden roots.

(2) Subsection (a) of this section notwithstanding, clearing and grubbing wastes may be burned subject to the following requirements:

(i) Air curtain destructors shall be used when burning clearing and grubbing wastes.

(ii) Each proposed use of air curtain destructors shall be reviewed and approved by the Department in writing with respect to equipment arrangement, design and existing environmental conditions prior to commencement of burning. Proposals approved under this subparagraph need not obtain plan approval or operating permits under Chapter 127 of this Title.

(iii) Approval for use of an air curtain destructor at one site may be granted for a specified period not to exceed 3 months, but may be extended for additional limited periods upon further approval by the Department.

(iv) The Department reserves the right to rescind approval granted if a determination by the Department indicates that an air pollution problem exists.

(3) Subsections (b) of this section notwithstanding clearing and grubbing wastes may be burned outside of any air basin; PROVIDED, HOWEVER, that upon receipt of a complaint or determination by the Department that an air pollution problem exists, the Department may order that the open burning cease or comply with subsection (b) of this section.

(4) During an air pollution episode, open burning is limited by Chapter 137 of this Title and must cease as specified in Chapter 137.

129.15 Coke pushing operations.

(a) No person shall cause, suffer, or permit the pushing of coke from a coke oven unless the pushing operation is enclosed during the removal of coke from a coke oven and pushing emissions are contained, except for such fugitive pushing emissions as are allowed by subsections (c) and (d) of this section. Any device for the enclosure of pushing operations shall be subject to the requirements of Chapter 127 of this Title (relating to construction, modification, reactivation and operation of sources) and the grant of plan approval.

(b) Any application submitted to the Department pursuant to Chapter 127 of this Title (relating to construction, modification, reactivation and operation of sources) for approval to install an air cleaning device designed to achieve compliance with subsection (a) of this section at an existing coke oven battery shall, in addition to the requirements of 123.13(b) (relating to processes) and 127.12(a) (relating to content of applications) of this Title, show that the air cleaning device is designed to reduce the fugitive emissions from pushing operations at any battery to the minimum attainable through the use of the best available technology following control.

(c) Visible fugitive air contaminants in excess of 20% opacity from any air cleaning device installed for the control of pushing emissions pursuant to a plan approval from the Department shall be prohibited unless the Department finds that:

(1) the emissions are of minor significance with respect to causing air pollution; and

(2) the emissions will not prevent or interfere with the attainment or maintenance of any ambient air quality standard.

(d) Application for a finding under subsection (c) of this section shall be filed in accordance with §123.1(b) of this Title (relating to prohibition of certain fugitive emissions).

(e) No person shall transport hot coke in the open atmosphere during the pushing operation, unless the visible fugitive air contaminants from said coke do not exceed 10% opacity.

129.16 Door maintenance, adjustment, and replacement practices.

(a) In the event any coke oven battery fails to comply with the emission standards contained in §123.44(a)(2) or (3) of this Title (relating to limitations of visible fugitive air contaminants from operation of any coke oven battery) at any time after the effective date of such standards at such a coke oven battery, the person responsible for the operation of such coke oven battery shall take the following action:

(1) Implement the following work practices:

(i) Self-sealing coke oven doors.

(A) Within one hour after the charge of each oven, the oven doors shall be inspected for visible emissions, and any doors found leaking shall be recorded.

(B) Doors leaking one hour after the charge shall be adjusted prior to the end of the second hour after the charge.

(C) Each oven door leaking one hour after the charge shall be reinspected for visible emissions two hours after the charge. A record shall be made of any door leaking two hours after the charge.

(D) Any door leaking two hours after each of two successive charges shall be replaced with a repaired, rebuilt, or new door prior to the next charge to that oven.

(E) An adequate supply of repaired, rebuilt, and new doors shall be maintained on site to allow the frequency of replacement necessary to comply with this subsection.

(F) If a newly installed, repaired, rebuilt, or new door leaks more than two hours after charge, the door and jamb shall be inspected when the door is next removed from the oven. If the door is found to be defective, it shall be replaced with a repaired, rebuilt, or new door prior to the next charge to that oven. If the door is not found to be defective, the jamb shall be replaced prior to the next charge to that oven.

(ii) Luted doors.

(A) Luted doors leaking 15 minutes after the charge shall be immediately reluted.

(B) Doors which fail to seal after the first reluting shall be recorded.

(C) Leaks appearing after the first reluting shall be immediately reluted.

(iii) Chuck doors.

(A) Within one hour after the charge of each oven, the chuck door shall be inspected, and any door found leaking shall be recorded.

(B) Chuck doors leaking one hour after the charge shall be gasketed prior to the next charge to that oven.

(C) If a freshly gasketed door is leaking one hour after the charge, it or the oven door shall be replaced prior to the next charge to that oven.

(iv) Cleaning. All doors and jambs shall be completely cleaned prior to each charge.

(2) Keep and maintain records of the inspections required by paragraph (1) of this subsection, including the names of inspectors, the date and time of each door inspection, and ovens observed leaking.

(3) Within 90 days following a determination by the Department or the battery operator that this section is applicable, the person responsible for the operation of a coke oven battery shall submit to the Department for approval a work practice and maintenance manual which shall include, but not be limited to, the job titles of persons having responsibility for the various tasks required by paragraph (1) of this section, specify procedures to be followed to assure implementation of the requirements of paragraph (1) of this section and state the numbers of replacement doors and jambs to be kept on site for each battery.

(b) In addition to, or as a substitute for, the requirements of paragraphs (1)-(3) of subsection (a) of this section, the Department may issue an order establishing further obligations with respect to the control of door area emissions in the event compliance with §123.44(a)(2) and (a)(3) of this Title (relating to limitations of visible fugitive air contaminants from operation of any coke oven battery) is not consistently achieved within the time allowed by an approved deferred compliance schedule. Such obligations may include, but shall not be limited to, the specification of such maintenance and work practices as the Department finds will achieve consistent compliance with such standards and the installation of best available technology for door sealing or for the capture and cleaning of door area emissions.

## SOURCES OF VOLATILE ORGANIC COMPOUNDS

### 129.51. General

(a) Equivalency provision. Techniques other than those specified in sections 129.52 - 129.65 of this Title (relating to sources of volatile organic compounds) may be used to comply with the requirements of these sections if the Department has approved such alternate techniques after finding that they are equivalent to or better than those specified in these sections in terms of the control of volatile organic compounds.

(b) New source performance standards. Sources covered by New Source Performance Standards which are more stringent than those contained in Chapter 129 shall comply with such standards in lieu of the standards found in Chapter 129.

### 129.52. Surface coating processes

(a) This section applies to facilities whose surface coating processes in total have the potential to emit volatile organic compounds into the outdoor atmosphere in quantities greater than 500 pounds (230 kilograms) per day or 50 tons (45,450 kilograms) per year.

(b) No person shall cause, suffer or permit the emission into the outdoor atmosphere of volatile organic compounds from any surface coating process listed in Table I of this Section 129.52 unless one of the following limitations is met:

(1) The weight of the volatile organic compounds per gallon of coating (minus water) is equal to or less than the level specified in Table I.

(2) the weight of volatile organic compounds emitted to the atmosphere is reduced through the use of vapor recovery or incineration or any other method which is acceptable under Subsection 129.51 (a) by a specific percentage where the percentage is determined as follows:

$$\% \text{ reduction} = 100 \left[ 1 - \frac{Y}{X} \frac{(Z - X)}{(Z - Y)} \right]$$

where X = pounds of VOC per gallon of coating (minus water) for present coating

Y = pounds of VOC per gallon of coating (minus water) found in Table I

Z = density of VOC in pounds per gallon

(c) The owner or operator of any surface coating process to which this section is applicable shall keep records of the quantity and composition of coating used in that process. Such records shall be retained for two years and made available to the Department upon request.

### TABLE I

### ALLOWABLE CONTENT OF VOLATILE ORGANIC COMPOUNDS IN SURFACE COATINGS BY PROCESS

| Surface Coating Processes | Allowable VOC Content<br>Weight of VOC per Volume of Coating (minus water)<br>pounds per gallon | kg. per liter |
|---|---|---|
| 1. Can coating | | |
| (a) sheet basecoat | 2.84 | 0.34 |
| (b) two piece can exterior | 2.84 | 0.34 |
| (c) two & three piece can interior body spray, | 4.25 | 0.51 |
| (d) two piece can end exterior | 4.25 | 0.51 |
| (e) side-seam spray | 5.51 | 0.66 |
| (f) end sealing compound | 3.67 | 0.44 |
| 2. Coil coating | 2.60 | 0.31 |
| 3. Fabric coating | 2.92 | 0.35 |
| 4. Vinyl coating | 3.76 | 0.45 |
| 5. Paper coating | 2.92 | 0.35 |
| 6. Automobile & light duty truck coating | | |
| (a) prime coat | 1.92 | 0.23 |
| (b) top coat | 2.84 | 0.34 |
| (c) repair | 4.84 | 0.58 |
| 7. Metal furniture coating | 3.00 | 0.36 |
| 8. Magnet wire coating | 1.67 | 0.20 |
| 9. Large appliance coating | 2.84 | 0.34 |

### 129.53. Alternative standards allowing internal offsets for surface coating facilities

(a) The Department may in an applicable operating permit approve alternative standards to apply to a surface coating facility upon a showing by the owner that the requirements of subsection (b), (c) or (d) of this section are met.

(b) Alternative standards may be approved if the following requirements are met:

(1) the facility owner or operator proposes an emission limitation which defines the maximum allowable emission rate in pounds per hour (kilograms per hour) for each surface coating process which is part of the surface coating facility and which is specified in subsection (b) (2) of this section; and

(2) the surface coating process is an emission source the

construction or modification of which has commenced prior to the effective date of this regulation and is a source to which no new source performance standard is applicable; and

(3) the combined emission rate from all surface coating processes which are part of the surface coating facility and which are specified in subsection (b) (2) of this subsection is less than or equal to an emission rate determined by the following equation:

$$E = A1 \times B1 + A2 \times B2 + \ldots + An \times Bn$$

where E = the allowable emissions from the surface coating facility in pounds per hour (kilograms per hour).

A1,2,...,n = the allowable emission rate for each surface coating process as determined in Section 129.52 in pounds per gallon (kilograms per liter) of coating, excluding water.

B1,2,...,n = the amount of coating material in gallons per hour (liters per hour), excluding water.

(4) All surface coating processes at the surface coating facility which are not included in the internal offset must comply with other applicable provisions of this Chapter.

(c) The allowable emission rate in pounds per hour (kilograms per hour) for each surface coating process may be allowed to fluctuate above or below the maximum emission rate specified in subsection (b) of this section if the combined emission rate from all surface processes which are part of the surface coating facility and which are specified in subsection (b)(2) of this section conforms to the requirements of subsection (b)(3) of this section and if the Department determines that his approach is as enforceable as the method set forth in subsection (b) of this section.

(d) Alternative standards as set forth in subsection (b) of this section may be determined on a daily basis if the owner or operator can demonstrate that this approach achieves an equivalent or better emission reduction and that this approach is as enforceable as alternative standards developed on an hourly basis.

### 129.54. Seasonal operation of auxiliary incineration equipment

Where incineration equipment employing auxiliary fuel has been installed to effect compliance with the discharge limitation of Sections 129.52, 129.53, or 129.55 through 129.64, the Department may authorize discontinuation of the operation of such equipment for the purpose of fuel conservation during the months of December, January, and February provided that the operation of such equipment is not required for purposes of occupational health or safety or for the control of toxic substances or other regulated pollutants or for the prevention of odor nuisances. Authorization to discontinue operation of incineration equipment may be made only after receipt of a written request from the owner or operator of an applicable facility. Authorization shall be made in writing and may be similarly revoked by the Department if such revocation is found necessary for the attainment or maintenance of any air pollution standard.

129.55. Petroleum refineries

(a) Wastewater separators. No person shall cause, suffer or permit the use of any compartment of any single or multiple compartment volatile organic compound wastewater separator which compartment receives effluent water containing 200 gallons (760 liters) a day or more of any volatile organic compound from equipment processing, refining, treating, storing, or handling volatile organic compounds unless such compartment is equipped with one of the following vapor loss control devices, properly installed, in good working order, and in operation:

(1) A container having all openings sealed and totally enclosing the liquid contents. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

(2) A container equipped with a floating roof, consisting of a pontoon type roof, double deck type roof, or internal floating cover, which will rest on the surface of the contents and be equipped with a closure seal or seals to close the space between the roof edge and container wall. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

(b) Pumps and compressors. All pumps and compressors handling volatile organic compounds with a vapor pressure of greater than 1.25 psi (8.6 kilopascals) at actual pumping conditions shall have mechanical seals.

(c) Vacuum producing systems.

(1) The owner or operator of any vacuum producing systems at a petroleum refinery may not permit the emission of any volatile organic compounds from the condensers, hot wells, or accumulators of the system.

(2) The emission limit under paragraph (c)(1) of this section shall be achieved by one of the following:

(i) piping the vapors to a firebox or incinerator;

(ii) compressing the vapors and adding them to the refinery fuel gas;

(iii) any method approved by the Department which recovers no less than 90% by weight of uncontrolled volatile organic compounds that would otherwise be emitted to the atmosphere.

(d) Process unit turnarounds. Purging of volatile organic compounds during depressurization of reactors, fractionating columns, pipes, and/or vessels during unit shutdown, repair, inspection or startup shall be performed in such a manner as to direct the volatile organic vapors to a fuel gas system, flare or vapor recovery system until the internal pressure in such equipment reaches 19.7 psia (136 kilopascals)

129.56. Storage tanks greater than 40,000 gallons (152,000 liters) capacity containing volatile organic compounds

(a) No person shall cause, suffer or permit the placing, storing or holding in any stationary tank, reservoir or other container with a capacity greater than 40,000 gallons (152,000 liters) of any volatile organic compounds with a vapor pressure greater than 1.25 psia (8.6 kilopascals) under actual storage conditions unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere or is designed and equipped with one of the following vapor loss control devices:

(1) A floating roof, consisting of a pontoon type roof, double deck roof or internal floating cover, which shall rest on the surface of the liquid contents and be equipped with a closure seal or seals to close the space between the roof edge and the tank wall. This control equipment shall not be permitted if the volatile organic compounds have a vapor pressure of 11.0 pounds per square inch absolute (76 kilopascals) or greater under actual storage conditions. All floating roofs shall be maintained in good condition and such that there are no visible holes, tears, or other openings in the seals or any seal fabric. All tank gauging or sampling devices shall be gas-tight except when gauging or sampling is taking place.

(2) A vapor recovery system, consisting of a vapor gathering system capable of collecting the volatile organic compound vapors and gases discharged and a vapor disposal system capable of processing such volatile organic vapors and gases so as to prevent their emission to the atmosphere. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. The vapor recovery system shall be maintained in good working order and recover at least 80% of the vapors emitted by such tank. Performance testing shall be conducted in accordance with the provisions of Chapter 139.4.

(3) All external floating roofs which are installed after December 31, 1979, shall be equipped with double closure seals to close the space between the roof edge and tank wall.

(b) For volatile organic compounds whose storage temperature is governed by ambient weather conditions, the vapor pressure under actual storage conditions shall be determined using a temperature which is representative of the average storage temperature for the hottest month of the year in which such storage takes place.

### 129.57. Storage tanks less than or equal to 40,000 gallons (152,000 liters) capacity containing volatile organic compounds

The provisions of this section shall apply to all above ground stationary storage tanks with a capacity equal to or greater than 2,000 gallons (7,600 liters) which contain volatile organic compounds with vapor pressure greater than 1.25 psia (8.6 kilopascals) under actual storage conditions. All storage tanks covered under this section shall have pressure relief valves which are maintained in good operating condition and which are set to release at no less than 0.7 psig (4.8 kilopascals) of pressure or 0.3 psig (2.1 kilopascals) of vacuum or the highest possible pressure and vacuum in accordance with state or local fire codes or the National Fire Prevention Association guidelines or other national consensus standards acceptable to the Department. Subsection 129.56 (b) applies to this section.

### 129.59. Bulk gasoline terminals

(a) No person shall cause, suffer or permit the loading of any gasoline into any vehicular tank with a capacity greater than 250 gallons (950 liters) from any bulk gasoline terminal unless the gasoline loading racks are equipped with a vapor collection and disposal system capable of processing volatile organic vapors and gases so that no more than 0.0668 pounds (30.3 grams) of gasoline (measured as propane) are emitted to the atmosphere for every 100 gallons (380 liters) of gasoline loaded. The test method and procedures for this section are found in Section 139.4.

(b) No person shall cause, suffer or permit the loading of any gasoline into any vehicular tank with a capacity greater than 250 gallons (950 liters) from any bulk gasoline terminal unless the gasoline loading racks are equipped with a loading arm with a vapor collection adaptor and pneumatic, hydraulic, or other mechanical means to force a vapor-tight seal between the adaptor and the hatch of the tank. A means shall be provided to prevent gasoline drainage from the loading device when it is not connected to the hatch, and to accomplish complete drainage before such removal. When loading is effected through means other than hatches, all loading and vapor lines shall be equipped with fittings which make vapor-tight connections and which will be closed upon disconnection.

### 129.60. Bulk gasoline plants

(a) No person shall cause, suffer or permit the loading of any gasoline into any vehicular receiving tanks with a capacity greater than 250 gallons (950 liters) from any bulk gasoline plant unless such loading is:

(1) bottom filled with the inlet flush with the receiving vehicular tank bottom; or

(2) top-submerged filled with the fill pipe extended to within six inches of the bottom of the receiving vehicular tank during top submerged filling operations.

(b) No person shall cause, suffer or permit the loading of any gasoline into the stationary tanks of any bulk gasoline plant with an average daily throughput of greater than 12,000 gallons (45,600 liters) from a tank truck delivering gasoline to such bulk gasoline plant unless a vapor balancing technique is employed. The displaced vapors from the storage tank shall be transferred to the dispensing delivery tank during loading operations and these vapors shall be processed for disposal in accordance with Section 129.59. This subsection shall not be applicable to storage tanks which conform to Subsectin 129.56 (a) (1). This subsection shall apply to all bulk gasoline plants regardless of size servicing the areas specified in subsection 129.61 (a).

(c) No person shall cause, suffer or permit the loading of any gasoline from a bulk gasoline plant with an average daily throughput of greater than 16,000 gallons (60,800 liters) into a tank truck with a capacity greater than 250 gallons (950 liters) unless a vapor balance system is employed. The displaced vapors from the tank truck shall be transferrd to the stationary tanks of the bulk gasoline plant during loading operations. Any storage tank at a bulk gasoline plant which is controlled under Subsection 129.56 (a) (1) must have a vapor recovery unit and must process vapors from gasoline loading in accordance with Section 129.59. This subsection shall apply to all bulk gasoline plants regardless of size servicing the areas specified in Subsection 129.61 (a).

### 129.61. Small gasoline storage tank control (stage 1 control)

(a) This section is applicable in the Counties of Allegheny, Armstrong, Beaver, Bucks, Butler, Chester, Delaware, Lackawanna, Lehigh, Luzerne, Montgomery, Northampton, Philadelphia, Washington and Westmoreland, and in the Harrisburg Area Transportation Study area as defined in Chapter 121.

(b) The following stationary storage tanks are exempted:

(1) tanks with a capacity of less than 2,000 gallons (7,600 liters) and which were installed prior to July 1, 1979;

(2) tanks with a capacity of less than 250 gallons (950 liters) and which are installed on or after July 1, 1979.

(c) No person shall transfer gasoline from any delivery vessel into any stationary storage tank unless the displaced vapors from the storage tank are transferred to the dispensing delivery tank through a vapor tight return line and unless the receiving tank is equipped with a submerged fill pipe which extends from the filling orifice to within 6 inches (0.15 meters) of the bottom of the tank. The vapors collected in the dispensing tank shall be disposed of in accordance with Section 129.59 or Section 129.60 (c).

### 129.62. General standards for bulk gasoline terminals, bulk gasoline plants, and small gasoline storage tanks

(a) Gasoline shall not be spilled or discarded in sewers or stored in open containers or handled in any other manner that would result in uncontrolled evaporation to the atmosphere.

(b) No owner or operator of a bulk gasoline plant, bulk gasoline terminal, tank truck or trailer or stationary storage tank to which Section 129.61 applies may permit the transfer of gasoline between the tank truck or trailer and any stationary storage tank unless:

(1) the vapor balance system is in good working order and is connected and operating; and,

(2) tank truck or trailer hatches are closed at all times during loading operations; and,

(3) there are no visually or audibly detectable leaks in the tank truck's or trailer's pressure/vacuum relief valves and hatch covers, the truck tanks or storage tanks or associated vapor and liquid lines during loading or unloading; and,

(4) the pressure and vacuum relief valves on storage vessels and tank trucks or trailers are set to release at no less than 0.7 psig (4.8 kilopascals) of pressure or 0.3 psig (2.1 kilopascals) of vacuum or the highest allowable pressure and vacuum as specified in state of local fire codes, or the National Fire Prevention Association guidelines or other national consensus standards acceptable to the Department.

(c) Subsection (b) does not apply to the filling of small gasoline storage tanks which are specifically excluded under Section 129.61 or to gasoline loading operations which are specifically excluded under Section 129.60.

### 129.63. Degreasing operations

(a) Cold cleaning degreasers as defined in Section 121.1 which have a degreaser opening which is greater than ten square feet (0.93 square meters) shall:

(1) Be equipped with:

(i) a cover to prevent evaporation of solvent during periods of non-use:

(ii) equipment for draining cleaned parts; and

(iii) a permanent, conspicuous label summarizing the operating requirements.

(2) Be operated in accordance with the following requirements:

(i) do not dispose of waste solvent or transfer it to another party, such that greater than 20% of the waste solvent (by weight) can evaporate into the atmosphere; store waste solvent only in covered containers;

(ii) close degreaser cover whenever not handling parts in the cleaner; and

(iii) drain cleaned parts for at least 15 seconds or until dripping ceases.

(b) Open top vapor degreaser as defined in Section 121.1 shall:

(1) Be equipped with:

(i) a cover that can be opened or closed easily without disturbing the vapor zone;

(ii) a safety swith which shuts off the sump heat if condenser coolant is either not circulating or too warm (condenser flow switch and thermostat);

(iii) a safety switch which shuts off the spray pump if the vapor level drops more than 4 inches (10 cm);

(iv) a permanent, conspicuous label summarizing the operating requirements found in 129.63 (b) (3) (i-vi).

(2) Be equipped with one of the following control devices:

(i) freeboard ratio greater than or equal to 0.75 and, if the degreaser opening is greater than 10 square feet (0.93 square meters), the cover must be powered;

(ii) refrigerated chiller;

(iii) enclosed design in which the cover or door opens only when the dry part is actually entering or exiting the degreaser;

(iv) carbon adsorption system, with ventilation greater than 50 cfm/square foot (15 cubic meters/min/square meter) of air vapor area when cover is open, and exhausting less than 25 parts per million of solvent averaged over one complete adsorption cycle.

(3) Be operated in accordance with the following requirements:

(i) keep cover closed at all times except when processing work loads through the degreaser;

(ii) minimize solvent carry-out by: racking all parts to allow full drainage; moving parts in and out of the degreaser at less than 11 feet per minute (3.3 meters/minute); degreasing the workload in the vapor zone at least 30 seconds or until condensation ceases; tipping out any pools of solvent on the cleaned parts before removal; and allowing parts to dry within the degreaser for at least 15 seconds or until visually dry;

(iii) do not degrease porous or absorbent materials, such as cloth, leather, wood or rope;

(iv) work loads should not occupy more than half of the degreaser's open top area;

(v) the vapor level should not drop more than 4 inches (10 cm) when the work load enters the vapor zone;

(vi) never spray above the vapor level;

(vii) repair solvent leaks immediately, or shutdown the degreaser;

(viii) do not dispose of waste solvent or transfer it to another party such that greater than 20% of the waste (by weight) will evaporate into the atmosphere; store waste solvent only in closed containers;

(ix) exhaust ventilation should not exceed 65 cfm/square foot (20 cubic meters/min/square meter) of degreaser open area, unless necessary to meet OSHA requirements; Ventilation fans should not be used near the degreaser opening;

(x) water should not be visually detectable in solvent exiting the water separator.

(c) Conveyorized degreasers as defined in Section 121.1 shall:

(1) Be equipped with:

(i) either a drying tunnel or another means such as a rotating (tumbling) basket, sufficient to prevent cleaned parts from carrying out solvent liquid or vapor:

(ii) a safety switch which shuts off the sump heat if condenser coolant is either not circulating or too warm (condenser flow switch and thermostat);

(iii) a safety switch which shuts off the spray pump if the vapor level drops more than 4 inches (10 cm);

(iv) a safety switch which shuts off sump heat when vapor level rises too high (vapor level control thermostat);

(v) entrances and exits which silhouette the work load so that the average clearance (between parts and the edge of the degreaser) is either less than 4 inches (10 cm) or less than 10% of the width of the opening;

(vi) covers for closing off the entrances and exits during shutdown hours.

(2) Be equipped with one of the following control devices:

(i) refrigerated chiller;

(ii) carbon adsorption system, with ventilation greater than 50 cfm/square foot (15 cubic meters/min/square meter) of air/vapor area (when downtime covers are open), and exhausting less than 25 parts per million of solvent by volume averaged over a complete adsorption cycle.

(3) Be operated in accordance with the following requirements:

(i) exhaust ventilation should not exceed 65 cfm/square foot (20 cubic meters/min/square meter) of degreaser opening unless necessary to meet OSHA requirements; Work place fans should not be used near the degreaser opening;

(ii) minimize carry out emissions by racking parts for best drainage and by maintaining vertical conveyor speed at less than 11 feet per minute (3.3 meters/minute);

(iii) do not dispose of waste solvent or transfer it to another party such that greater than 20% of the waste (by weight) can evaporate into the atmosphere; Store waste solvent only in covered containers;

(iv) repair solvent leaks immediately, or shutdown the degreaser;

(v) water should not be visibly detectable in the solvent exiting the water separator;

(vi) down-time cover must be placed over entrances and exits of conveyorized degreasers immediately after the conveyor and exhaust are shutdown and removed just before they are started up.

129.64. Cutback asphalt paving

(a) After April 30, 1980, no person may cause, allow or permit the mixing, storage, use or application of cutback asphalt for paving operations except when;

(1) long-life stockpile storage is necessary; or

(2) the use or application between October 31 and April 30 is necessary; or,

(3) the cutback asphalt is to be used solely as a penetrating prime coat, a dust palliative, a tack coat, a precoating of aggregate, or a protective coating for concrete.

129.65. Ethylene production plants

No person shall cause, suffer or permit the emission into the outdoor atmosphere of any waste gas stream from any ethylene production plant or facility, unless the gas stream is properly burned at no less than 1,300 degrees F (700 degrees C) for at least 0.3 seconds, except that no person shall cause, suffer or permit the emission of volatile organic compounds in gaseous form into the outdoor atmosphere from any vapor blowdown system unless these gases are burned by smokeless flares.

129.66. Compliance schedules and final compliance dates

(a) The owner or operator of a surface coating process that proposes to comply with Sections 129.52 or 129.53 by use of low solvent content coatings shall adhere to the increments of progress contained in the following schedules:

(1) plans for the use of low solvent content coating technology must be submitted to the Department within six months of the date of adoption of the regulation; the Department shall issue an order upon approval of the plan;

(2) research and development of low solvent content coatings must be completed within one year of the date of adoption of the regulation;

(3) evaluation of product quality and commercial acceptance must be completed and the appropriate plan approval application must be submitted to the Department where applicable within eighteen months of the date of adoption of the regulation;

(4) purchase orders must be issued for low solvent content coatings and process modifications within twenty-one months after the date of adoption of the regulation;

(5) initiation of process modification must begin within two years of the date of adoption of the regulation;

(6) process modification must be completed and use of low solvent content coatings must begin within thirty-three months of the date of adoption of the regulation;

(7) final compliance shall be achieved no later than three years of the date of adoption of the regulation;

(8) the owner or operator of a stationary source subject to

the compliance schedule of this subsection shall report to the Department within five days after the deadline for each increment of progress whether the required increment of progress has been met.

(b) The owner or operator of a source to which Sections 129.55, 129.57, 129.59, 129.60, 129.61, or 129.63 apply or which proposes to comply with Sections 129.52 or 129.53 by installing or operating emission control equipment or replacement process equipment or any other method not covered by subsection (a) of this section shall adhere to the increments of progress contained in the following schedule:

(1) final plans for the emission control or process equipment together with the appropriate plan approval application where applicable must be submitted to the Department within six months of the date of adoption of the applicable regulation; the Department shall issue an order upon approval of the plan;

(2) contracts for the emission control process equipment must be awarded or orders for the purchase of component parts must be issued within one year of the date of adoption of the applicable regulation;

(3) initiation of on-site construction or installation of the emission control or process equipment must begin within eighteen months of the date of adoption of the applicable regulation;

(4) on-site construction or installation of the emission control or process equipment must be completed within twenty-one months of the date of adoption of the applicable regulation;

(5) final compliance shall be achieved no later than two years after the date of adoption of the applicable regulation.

(6) any owner or operator of a source subject to the compliance schedule of this subsection shall report to the Department within five days after the deadline for each increment of progress whether the required increment of progress has been met.

(c) Any owner or operator of a source covered under Section 129.61 will be in compliance with subsection 129.66 (b) if compliance schedules and reporting requirements in subsection 129.66 (b) are carried out by the company which delivers gasoline to such source provided that such owner or operator covered under Section 129.61 designates such company in writing to carry out these duties. The owner or operator covered under Section 129.61 shall remain responsible for attainment of the Section 129.66 (b) compliance schedules.

(d) The compliance dates for the increments of progress specified in subsections (a) and (b) of this section may be extended on a case-by-case basis for individual sources regulated in Sections

129.52 and 129.53 if the owner or operator petitions for a delayed compliance order pursuant to subsection 113 (d) of the Clean Air Act and can demonstrate that one or more of the necessary conditions is satisfied:

(1) that it is physically impossible for the source to comply with the compliance dates for the increments of progress;

(2) that, by allowing an extension of the compliance dates for the increments of progress, innovative technology will be applied which will result in achievement of reductions which are significantly greater than required in Sections 129.52 - 129.53;

(3) additional time is necessary to allow for the development of low solvent systems when the only alternative is application of incineration or vapor recovery systems;

(4) the source is part of a statewide program to prioritize the sequence of installing controls at a number of similar sources owned or controlled by the same company and the overall compliance is as expeditious as practicable.

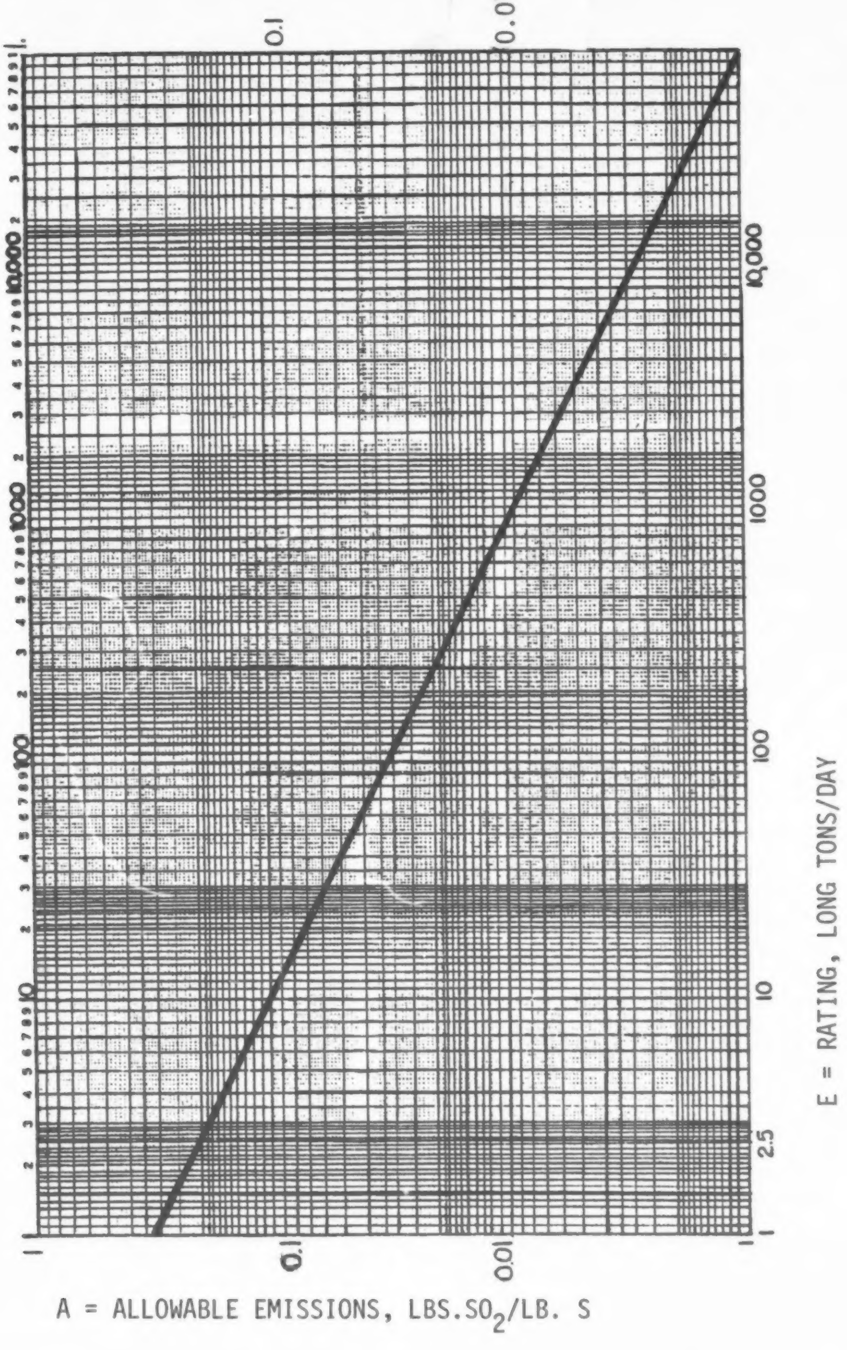
(e) No source may receive any extension under subsection (d) of this section which either:

(1) extends beyond June 30, 1985; or

(2) interferes with the attainment of reasonable further progress toward attainment of any ambient air quality standard as reasonable further progress is defined in the Clean Air Act Amendments of 1977.

## FIGURE 1

## SULFUR OXIDES - SULFUR RECOVERY PLANTS



## CHAPTER 131. AMBIENT AIR QUALITY STANDARDS

### 131.1 Purpose.

The purpose of this Chapter is to:

(1) Establish the maximum concentrations of air contaminants that shall be permitted to exist in the ambient air, at the point of its use, under various conditions and in various areas of this Commonwealth.

(2) Provide standards against which existing air quality may be compared.

### 131.2 National ambient air quality standards.

National Ambient Air Quality Standards promulgated by the Administrator of the United States Environmental Protection Agency pursuant to the provisions of the Clean Air Act, are hereby incorporated, by reference, as part of the standards in 131.3 of this Title (relating to ambient air quality standards).

### 131.3 Ambient air quality standards.

The following standards shall apply and unless otherwise stated, are maximum values that shall not be exceeded:

| | Concentrations Averaged Over | | | |
|---|---|---|---|---|
| Contaminant | 1-Year | 30-Days | 24-Hours | 1-Hour |
| Settled particulate (total) | 0.8 $mg/cm^2$/mo. | 1.5 $mg/cm^2$/mo. | | |
| Lead | - | 5 $ug/m^3$ | | |
| Beryllium | - | 0.01 $ug/m^3$ | | |
| Sulfates (as $H_2SO_4$) | - | 10 $ug/m^3$ | 30 $ug/m^3$ | |
| Fluorides (total soluble, as HF) | - | - | 5 $ug/m^3$ | |
| Hydrogen sulfide | - | - | 0.005ppm | 0.1ppm |

### 131.4 Application of ambient air quality standards.

The values specified in 131.2 and 131.3 of this Title (relating to ambient air quality standards) shall be considered as representing minimum quality, not necessarily desirable quality. Nothing contained in this Chapter shall be construed to preclude the Department from enforcing or applying any provision of this Article in areas where the ambient air quality is, or will be, at concentrations less than those specified in 131.2 and 131.3 of this Title (relating to ambient air quality standards).

# CHAPTER 135. REPORTING OF SOURCES

## 135.1 Definitions.

The following word, when used in this Chapter, shall have the following meaning, unless the context clearly indicates otherwise:

Modification - Any alteration which will, or might reasonably be expected to, change the amount, effect or characteristics of the air contaminants discharged.

## 135.2 Applicability to sources.

This Chapter applies to all sources except:

(1) Any mobile source.

(2) Any source that emits non-specific particulate matter only and for which the potential emission rate is less than 5 lbs. per hour.

(3) Any source that emits inert gases only, such as argon, carbon dioxide, helium, krypton, neon, nitrogen, oxygen, and xenon.

(4) Any combustion unit rated at less than 2,500,000 BTU per hour of heat input.

(5) Any source used in residential premises designed to house four or less families.

(6) Other sources and classes of sources determined to be of minor significance by the Department.

## 135.3 Reporting.

(a) Any person who owns or operates a source, to which this Chapter applies, shall submit to the Department a source report within 120 days after the receipt of a source reporting form, unless a time extension has been granted by the Department. Source reports shall be made on source reporting forms and shall be complete.

(b) Any person who has received a source reporting form or any person who has reported a source to the Department pursuant to the requirements of subsection (a) of this section shall comply with the requirements of subsection (a) of this section within 90 days of the acquisition and operation of any additional source.

(c) Any person who has reported a source to the Department pursuant to the requirements of subsection (a) of this section, shall report any modification to, installation of any air cleaning device on, or permanent cessation in operations of said source within 90 days after the completion of such modification or installation or cessation; reports concerning such modification or installation shall contain sufficient pertinent information to enable the Department to determine the effect on emissions of the modification or installation.

135.4 Reporting forms and guides.

A statement of guidelines, reporting forms and instructions shall be published and made available by the Department. The statement shall serve as a basic manual of guidance for the reporting of information required by this Chapter.

## CHAPTER 137. AIR POLLUTION EPISODES

### 137.1 Purpose.

The purpose of this Chapter is to prevent the excessive build-up of air pollutants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these pollutants on the health of persons.

### 137.2 Monitoring facilities.

The Department shall publish and make available information on the location of air quality monitoring facilities designated by the Department for the purposes of this Chapter. Information on the sampling techniques employed at these facilities shall also be published and made available.

### 137.3 Episode criteria.

Conditions justifying the declaration of a Forecast shall be deemed to exist whenever the Department determines that the meteorological conditions are such that the ambient air contaminant concentrations in any part of any air quality control region can be expected to substantially increase above normal levels. Conditions justifying the declaration of an Alert, Warning or Emergency shall be deemed to exist whenever the Department determines that the concentration of ambient air contaminants in any part of any air quality control region is attaining or has attained levels which could, if such levels are sustained or exceeded, lead to a substantial threat to the health of persons. In making these determinations, the Department shall be guided by the following criteria:

(1) Forecast level - A Forecast shall be declared when the meteorological conditions are such that ambient air contaminant concentrations can be expected to substantially increase above normal levels.

(2) Alert level - An Alert should be declared when one of the following levels is reached at a designated air quality monitoring facility:

$SO_2$ - 0.3 ppm, 6-hour average, or
Particulate matter - 4 COHS, 6-hour average, or
$SO_2$ and particulate matter combined - product of
  $SO_2$ ppm, 24-hour average, and COHS, 24-hour average,
  equal to 0.3, or
$NO_2$ - 0.2 ppm, 24-hour average

and meteorological conditions are such that pollutant concentrations can be expected to remain at the above levels for twelve (12) or more hours of increase unless control actions are taken.

(3) Warning level - A Warning should be declared when any one of the following levels is reached at a designated air quality monitoring facility:

$SO_2$ - 0.5 ppm, 6-hour average, or
Particulate matter - 6 COHS, 6-hour average, or
$SO_2$ and particulate matter combined - product of
  $SO_2$ ppm, 24-hour average, and COHS, 24-hour average, equal to 0.9, or
CO - 30 ppm, 8-hour average, or
Oxidants - 0.25 ppm, 4-hour average, or
$NO_2$ - 0.3 ppm, 24-hour average

and meteorological conditions are such that pollutant concentrations can be expected to remain at the above levels for twelve (12) or more hours or increase unless control actions are taken.

(4) Emergency level - An Emergency should be declared when any one of the following levels is reached at a designated air quality monitoring facility:

$SO_2$ - 0.6 ppm, 24-hour average, or
Particulate matter - 7 COHS, 24-hour average, or
$SO_2$ and particulate matter combined - product of
  $SO_2$ ppm, 24-hour average, and COHS, 24-hour average, equal to 1.4, or
CO - 40 ppm, 8-hour average, or
Oxidants - 0.35 ppm, 4-hour average, or
$NO_2$ - 0.4 ppm, 24-hour average

and meteorological conditions are such that this condition can be expected to continue for twelve (12) or more hours.

(5) Termination - Once declared, any level reached in accordance with these criteria should remain in effect until the criteria for the Alert level are no longer met and meteorological conditions are such that pollutant concentrations can be expected to decrease.

137.4 Stand-by plans.

(a) The provisions of this section shall apply to the following classes of sources:

(1) Coal or oil-fired electric generating facilities.

(2) Coal or oil-fired steam generating facilities rated at more than 100 million BTUs per hour of heat input.

(3) Manufacturing industries of the following classifications which employ more than 20 employees at any one location:

(i) Primary and secondary metals industries.
(ii) Petroleum refining and related industries.
(iii) Chemical and allied products industries.
(iv) Paper and allied products industries.
(v) Glass, clay and concrete products industries.

(4) Municipal and commercial refuse disposal and salvage operations other than incinerators rated at less than 1,000 pounds per hour of refuse.

(5) Other sources determined to be of significance by the Department. The persons responsible for these sources shall be so advised by the Department.

(b) Any person responsible for the operation of a source shall prepare stand-by plans for reducing the emission of air contaminants from that source during Alert, Warning, and Emergency levels. The plans shall be designed to reduce or eliminate the emissions of air contaminants in accordance with the objectives set forth in Tables 1, 2, 3 and 4 appended to this Chapter. The plans shall be in writing on forms published and distributed by the Department and shall identify the approximate amount of reduction of various air contaminants and a description of the manner in which the reductions will be achieved.

(c) Stand-by plans for sources located in air basins shall be submitted to the Department within 240 days from the effective date of this Chapter or within a time period specified by the Department in an order. Stand-by plans for sources subject to the provisions of 127.11 of this Title (relating to requirements for plan approval) shall be submitted to the Department in accordance with 127.12 (a) (7) of this Title (relating to contents of application for plan approval).

(d) Stand-by plans for sources not subject to the provisions of subsection (c) of this section shall be submitted to the Department within a time period specified by the Department in an order.

(e) If the Department determines that a stand-by plan does not provide for effectively achieving the objectives set forth in Tables 1, 2, 3 and 4, the Department may disapprove the plan, state its reasons for such disapproval and either order the preparation of an amended plan within a time period specified in the order or issue, by order, a plan to replace the disapproved plan.

(f) The Department may amend or otherwise change any stand-by plan if it determines that good cause exists for such action. Any such amendment or change shall be in writing and shall be accompanied by a notice of sufficient cause for the action.

(g) During a Forecast, Alert, Warning or Emergency level, the stand-by plan shall be made available by the person responsible for the source to any employee of the Department on the premises of the source.

137.5 Implementation of emission reduction procedures.

(a) When the Department declares that a Forecast, Alert, Warning or Emergency level exists in any area of the Commonwealth, the person responsible for the operation of a source whose emissions may affect air quality in such area shall implement the stand-by plan required by 137.4 of this Title (relating to requirements for stand-by plans) for that source.

(b) Any person responsible for the operation of a source not required to prepare a stand-by plan in accordance with the provision of 137.4 of this Title (relating to requirements for stand-by plans) shall, when the Department declares that a Forecast, Alert, Warning or Emergency level exists in an area of the Commonwealth in which such source is located, implement applicable emission reduction procedures in accordance with the objectives of Tables 1, 2, 3 and 4.

### TABLE 1 - FORECAST LEVEL ACTIONS

Prepare for the implementation of stand-by plans for an Alert.

### TABLE 2 - ALERT LEVEL ACTIONS

#### Part A. General requirements

1. No open burning of any material.
2. Limit incineration to the hours between 12 n. and 4 p.m.
3. Limit soot blowing and boiler lancing of combustion units to the hours between 12 n. and 4 p.m.
4. Substantially reduce the emissions of air contaminants by reduction of operating levels.
5. Substantially reduce space heating and cooling requirements.
6. Reduce to a minimum the emissions of air contaminants from sources which are not in compliance with the emission limitations set forth in this Article and from sources operating under a temporary variance granted by the Department.
7. Defer or postpone operations that can be deferred or postponed.
8. Reduce use of electricity.
9. Eliminate unnecessary operations of motor vehicles.
10. Prepare for the implementation of stand-by plans for a Warning.

Sources listed below shall take the indicated control actions in addition to taking the actions listed in Part A of this Table.

| Source | Control Actions |
|---|---|
| 1. Thermal electric generating facilities | a. Switching to low ash and low sulfur fuel.<br>b. Maximum shifting of load from old (high polluting) units to new (low polluting) units.<br>c. Maximum shifting of load to facilities outside the Alert area. |
| 2. Industrial boilers | Switching to low ash and low sulfur fuel. |
| 3. Blast furnaces | Substantial reduction of production. |

| Source | Control Actions |
|---|---|
| 4. Coke ovens | Substantial increase of coking time. |
| 5. Sinter plants | a. Substantial reduction of production.<br>b. Switching to low sulfur ore, coal and coke. |
| 6. Steel making furnaces | a. Substantial reduction of production.<br>b. Substantial reduction of oxygen usage.<br>c. Switching to low sulfur fuel. |
| 7. Slag quenching | Cease operations. |

## TABLE 3 - WARNING LEVEL ACTIONS

### Part A. General requirements

1. Continue all control actions taken for Alert level.
2. Cease incineration of any solid or liquid waste.
3. Reduce to a minimum the emissions of air contaminants by ceasing, curtailing, postponing or deferring all operations to the extent possible without causing injury to persons or damage to equipment.
4. Reduce to a minimum space heating and cooling requirements.
5. Reduce to a minimum the use of electricity.
6. Use car pools and public transportation for necessary travel.
7. Prepare for the implementation of stand-by plans for an Emergency.

### Part B. Requirements for specific sources

Sources listed below shall take the indicated control actions in addition to taking the actions listed in Part A of this Table.

| Source | Control Actions |
|---|---|
| 1. Thermal electric generating facilities | Substantially reduce power supplies to users outside the Warning area. |
| 2. Blast furnaces | Maximum reduction of production. |
| 3. Coke ovens | Cease charging and pushing to the extent possible without causing damage to equipment; in the event that ovens must be pushed and charged to generate enough gas for underfiring, use the ovens in best repair with respect to the emission of air contaminants. |

| | |
|---|---|
| 4. Sinter plants | Cease production. |
| 5. Steel making furnaces | Cease production to the extent possible without causing damage to equipment. |
| 6. Mines and quarries | Maximum reduction of operations without causing damage to equipment. |

## TABLE 4 - EMERGENCY LEVEL ACTIONS

### Part A. General requirements

1. Continue all control actions taken for Warning level.
2. At all places of employment, immediately cease operations to the extent possible without causing injury to persons or damage to equipment except that the following establishments may remain in operation:
   (a) Commercial establishments engaged in selling or distributing food or medical and surgical supplies.
   (b) Those governmental and semi-governmental offices determined by the head of the respective governments or of the respective semi-governmental agencies to be vital for public safety or welfare or for the enforcement of the provisions of this Article.
   (c) Those engaged in rendering medical or surgical services.
3. Cease operations of motor vehicles except in emergencies, when approved by police officials.

### Part B. Requirements for specific sources

Sources listed below shall take the indicated control actions in addition to taking the actions listed in Part A of this Table

| Source | Control Action |
|---|---|
| Thermal electric generating facilities | Maximum reduction of power supplies to users outside the Emergency area. |

# CHAPTER 139. SAMPLING AND TESTING

## GENERAL

### 139.1 Sampling facilities.

Upon the request of the Department, the person responsible for a source shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance by the Department of tests on such sources. The Department shall set forth, in the request, the time period within which the facilities shall be provided as well as the specifications for the said facilities.

### 139.2 Sampling by others.

Sampling and testing done by persons other than the Department may be accepted by the Department provided that:

(1) The Department has been given reasonable notice of the sampling and testing and has been given reasonable opportunity to observe and participate in the sampling and testing.

(2) The sampling and testing is conducted under the direct supervision of persons qualified, by training and experience, to conduct such sampling and testing.

(3) Procedures for the sampling and testing are in accord with the provisions of this Chapter.

(4) The reports of the sampling and testing are accurate and comprehensive.

### 139.3 General requirements.

(a) The Department shall use the methods set forth in this Chapter to assess emissions from stationary sources or ambient levels of air contaminants.

(b) The Department has published a supplement to this Chapter entitled "Source Testing Manual." This supplement contains detailed information on source testing methods, procedures and guidance for the reporting of emissions to the Department. This supplement is available from the Department by request.

(c) The performance standards for stationary sources set forth in this Chapter permit freedom in the selection of equipment and consistency in obtaining accurate results which are representative of the conditions under which a source is evaluated.

(d) The sampling and analytical procedures employed to measure ambient levels of air contaminants shall be consistent with obtaining accurate results which are representative of the conditions being evaluated.

## 139,.4 References.

The following are references referred to in this Subchapter:

(1) "Standards of Performance for New Stationary Sources," Federal Register, Part II, Volume 36, No. 247, pp. 24876 - 24895, December 23, 1971, Washington, D.C.

(2) Devorkin, H., et al. "Air Pollution Source Testing Manual," Los Angeles Air Pollution Control District, Second Printing, November 1965.

(3) "Standard Method for Sampling Stacks for Particulate Matter," American Society for Testing Materials, D 2928 - 71, 1916 Race Street, Philadelphia, Pennsylvania.

(4) Jacobs, M.D. et al., "Ultramicrodetermination of Sulfides in Air," Anal. Chem., 29:1349 (1957).

(5) "Air Sampling Instruments." 2nd. ed., American Conference of Governmental Industrial Hygienists, 1014 Broadway, Cincinnati 2, Ohio, 1962, pp. B-3-12-B-3-14.

(6) "Recommended Standard Method for Continuing Dust Fall Survey (APM-1, Revision 1)," TR-2 Air Pollution Measurements Committee, J. Air Poll. Control Assoc., 16:372 (1966).

(7) "Air Pollution Measurements of the National Air Sampling Network: Analyses of Suspended Particulates 1957 - 1961," Public Health Service Pub. No. 978, Washington, D.C., 1962.

(8) Interbranch Chemical Advisory Committee, "Selected Methods for the Measurement of Air Pollutants," PHS Pub. No. 999-AP-11, Cincinnati, Ohio, 1965, p. I-1.

(9) "Standard Method of Test for Inorganic Fluoride in the Atmosphere," ASTM Standards on Methods of Atmospheric Sampling and Analyses, Philadelphia, Pennsylvania, 1962, p. 67.

(10) Hilovsky, Robert J., et al., Determination of Sulfur Oxide (utilizing Isopropyl Alcohol and Sodium Hydroxide), "Air Pollution Source Testing Manual," Method 5.4, South Coast Air Quality Management District, El Monte, CA, Second Printing, August 1978.

(11) "Standard Method of Sampling Petroleum and Petroleum Products," American Society for Testing Materials, D 270-65, 1916 Race Street, Philadelphia, Pennsylvania.

(12) "Standard Method of Test for Kinematic Viscosity of Transparent and Opaque Liquids (and the calculation of Dynamic Viscosity)," American Society for Testing Materials, D 445-74, 1916 Race Street, Philadelphia, Pennsylvania.

(13) "Standard Method of Test for Sulfur in Petroleum Products (Lamp Method)," American Society for Testing Materials, D 1266-70, 1916 Race Street, Philadelphia, Pennsylvania.

(14) "Standard Method of Test for Sulfur in Petroleum Products by the Bomb Method," American Society for Testing Materials, D 129-64, 1916 Race Street, Philadelphia, Pennsylvania.

(15) "Standard Method of Test for Sulfur in Petroleum Oils (Quartz-Tube Method)," American Society for Testing Materials, D 1551-68, 1916 Race Street, Philadelphia, Pennsylvania.

(16) "Standard Method of Test for Sulfur in Petroleum Products (High Temperature Method)," American Society for Testing Materials, D 1552-64, 1916 Race Street, Philadelphia, Pennsylvania.

(17) "Standard Method of Test for Sulfur in Petroleum Products (X-Ray Spectrographic Method)," American Society for Testing Materials D 2622-67, 1916 Race Street, Philadelphia, Pennsylvania.

(18) "Standard Method of Test for Volatile Content of Paints," American Society for Testing Materials, D 2369-73, 1916 Race Street, Philadelphia, Pennsylvania.

(19) "Water in Paint and Varnishes, (Karl Fischer Titration Method)," Federal Standard 141 a, Method 4082.1, General Services Administration, Business Service Center, Washington, D.C.

(20) "Standard Method of Test for Density of Paint, Varnish, Lacquer, and Related Products," American Society for Testing Materials, D 1475-60 (reapproved 1974), 1916 Race Street, Philadelphia, Pennsylvania.

(21) "Standard Methods for Examination of Water and Wastewater, 14th Ed., "Organic Carbon (total), Combustion-Infrared Method," American Public Health Association, Washington, D.C.

(22) Source Testing Manual, 1978, "Test Methods for the Collection and Analysis of Volatile Organic Compounds" Pennsylvania Department of Environmental Resources, Bureau of Air Quality Control, Harrisburg, Pennsylvania.

(23) Emission Test Procedure for Tank Truck Gasoline Loading Terminals (Appendix A), "Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals," EPA-450/2-77-026, U.S. Environmental Protection Agency, October, 1977.

139.11 General requirements.

The following are applicable to source tests for determining emissions from stationary sources:

(1) All performance tests shall be conducted while the source is operating at maximum routine operating conditions or under such other conditions, within the capacity of the equipment, as may be requested by the Department.

(2) The Department shall consider for approval test results where sufficient information is provided to verify the source conditions existing at the time of the test and where adequate data is available to show the manner in which the test was conducted. Information submitted to the Department shall include, as a minimum:

(i) A thorough source description, including a description of any air cleaning devices and the flue.

(ii) Process conditions, e.g., charging rate of raw materials or rate of production of final product, boiler pressure, oven temperature and other conditions which may affect emissions from the process.

(iii) The location of the sampling ports.

(iv) Effluent characteristics, including velocity, temperature, moisture content, gas density (%CO, $CO_2$, $O_2$ and $N_2$), static and barometric pressures.

(v) Sample collection techniques employed, including procedures used, equipment descriptions and data to verify that isokinetic sampling for particulate matter collection occurred and that acceptable test conditions were met.

(vi) Laboratory procedures and results.

(vii) Calculated results.

139.12 Emissions of particulate matter.

The following are applicable to tests for determining emissions of particulate matter from the stationary sources:

(1) Test methods for particulate emissions shall include both dry filter(s) and wet impingers and provide for at least a 95% collection efficiency of particulate matter.

(2) Isokinetic sampling procedures shall be used in sampling for particulate matter emissions and the weights of all soluble and insoluble particulate determined gravimetrically after removal of uncombined water.

(3) Test methods and procedures shall be equivalent to those specified 139.4 (1) of this Title (relating to references). The equipment shall be inert where appropriate and similar to that specified in 139.4 (1) - (3) of this Title (relating to references).

(4) The minimum sampling time shall be one hour and the minimum sample volume shall be 50 cubic feet corrected to standard conditions (dry basis).

(5) Results shall be calculated based upon sample train component weights specified in section 139.4 (1) and insoluble weights in the impinger solution and on sample-exposed surfaces subsequent to the final filtration media. Insoluble weights shall be determined by 0.22 μ membrane filtration. Results shall be reported as pounds of particulate matter per hour and in accordance with units specified in sections 123.11 - 123.13 and 129.12 of this Title (relating to standards for contaminants and sources.

## 139.13 Emissions of $SO_2$, $H_2S$ and $NO_2$.

The following are applicable to tests for determining emissions of $SO_2$, $H_2S$ and $NO_2$ from stationary sources:

(1) Test methods for $SO_2$, $H_2S$ and $NO_2$ shall provide for a minimum collection efficiency of 95 percent of the respective pollutant.

(2) Sample collection for $SO_2$ shall be at a constant rate and the weight of oxides of sulfur shall be determined gravimetrically.

(3) Test methods and procedures for sulfur oxides shall be equivalent to or modified to produce results equivalent to those which would be obtained by employing the procedures specified in 139.4 (2) of this Title (relating to references). Test methods and procedures for $SO_2$ from combustion sources shall be equivalent to or modified to produce results equivalent to those which would be obtained by employing procedures specified in section 139.4 (10) of this Title (relating to references). Details for sampling equipment are contained in section 139.4 (1) or (10) of this Title.

(4) Sample collection for $H_2S$ shall be at a rate proportional to the stack gas velocity and the weight of hydrogen sulfide shall be determined colorimetrically.

(5) Test methods and procedures for $H_2S$ shall be equivalent to or modified to produce results equivalent to those which would be obtained by employing the procedures specified in 139.4 (4) of this Title (relating to references). The equipment shall be inert where appropriate and similar to that specified in 139.4 (2) of this Title (relating to references).

(6) For determining emissions of $SO_2$ and $H_2S$, the minimum sampling time shall be one hour and the minimum sample volume shall be 30 cubic feet corrected to standard conditions (dry basis).

(7) Test methods and procedures and equipment for $NO_2$ shall be similar to those specified in 139.4 (1) of this Title (relating to references). Minimum sampling requirements are four grab samples taken at fifteen (15) intervals in accordance with section 139.4 (1) of this Title.

(8) Results shall be reported as pounds per hour and in accordance with units for the emission standard for that source as specified in section 123 or section 129 of this Title (relating to standards for contaminants and sources) or other terms specified by the Department.

## 139.14 Emissions of volatile organic compounds.

(a) The following are applicable to tests for determining volatile organic content:

(1) Test methods and procedures for the volatile organic content, water content and density of surface coatings shall be equivalent to those specified in section 139.4 (18), (19) and (20), respectively, of this Title (relating to references).

(2) Test methods and procedures for the volatile organic compounds in effluent water shall be equivalent to those specified in section 139.4 (21) of this Title (relating to references), expressed as pentane.

(3) Results shall be reported in accordance with the units specified in sections 129.52, 129.53 and 129.55 of this Title (relating to standards for contaminants and sources).

(b) The following are applicable to tests for determining the emissions of volatile organic compounds:

(1) Test methods for volatile organic compound emissions shall use a condensation technique having at least a 95% collection efficiency for volatile organic compounds.

(2) Except for gasoline vapor recovery systems, the test methods and procedures and equipment for volatile organic compounds, excluding carbon dioxide, carbon monoxide and methane, shall be equivalent to those specified in section 139.4 (22) of this Title (relating to references). The owner or operator of any source may exclude ethane from the volatile organic compound measurement. If ethane is excluded the measurement of ethane must be reported separately.

(3) For gasoline vapor recovery systems, test methods and procedures and equipment for volatile organic compounds shall be equivalent to those specified in section 139.4 (23) of this Title (relating to references).

(4) Results shall be reported in accordance with the units specified in sections 129.55, 129.56,129.59, 129.60, and 129.63 (relating to standards for contaminants and sources.)

## 139.15 Emissions of other air contaminants.

Test methods and procedures may be modified for determining emissions of contaminants other than particulate matter, $SO_2$, $H_2S$, and $NO_2$ from stationary sources in any manner consistent with accepted air pollution testing practices and with obtaining accurate results which are representative of the conditions evaluated. Such modifications shall be subject to the approval of the Department and shall be clearly indicated in the report of test results.

139.16 Sulfur in fuel oil.

The following are applicable to tests for the analysis of commercial fuel oil.

(1) The fuel oil sample for chemical analysis shall be collected in such a manner as to provide a representative sample. Upon the request of a Department official, the person responsible for the operation of the source shall collect the sample employing the procedures and equipment specified in section 139.4 (11) of the Title (relating to references).

(2) Test methods and procedures for the determination of viscosity shall be that specified in section 139.4 (12) of this Title (relation to references). The viscosity shall be determined at 100°F.

(3) Tests methods and procedures for the determination of sulfur shall be those specified in section 139.4 (13), (14), (15), (16), and (17) of this Title (relating to references).

(4) Results shall be reported in accordance with the units specified in section 123.22 of this Title (relating to standards for contaminants and sources).

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## FUGITIVE PARTICULATE MATTER

### 139.21 Emissions of fugitive particulate matter.

The following are applicable to tests for determining fugitive particulate matter emissions:

(1) Test methods and procedures and equipment for fugitive particulate matter shall be equivalent to those specified in 139.4 (5) of this Title (relating to references).

(2) The concentration of particulate matter shall be determined by counting and the results shall be reported in accordance with the requirements of 123.2 of this Title (relating to standards for contaminants).

(3) Samples to determine background fugitive particulate matter concentrations shall be taken upwind of the source(s).

## AMBIENT LEVELS OF AIR CONTAMINANTS

### 139.31 General.

The provisions of 139.32 and 139.33 of this Title (relating to sampling and analytical procedures) are applicable to methods for determining ambient levels of air contaminants.

### 139.32 Sampling and analytical procedures.

(a) The following sampling and analytical techniques may be used directly or employed as reference standards against which other methods may be calibrated:

| Contaminant | Sampling Method | Analytical Method |
|---|---|---|
| Settled particulates (total) | Open top cylinder (6) | Gravimetric (6) |
| Lead | High-volume filtration (7) | Spectrographic (7) |
| Beryllium | High-volume filtration (7) | Spectrographic (7) |
| Sulfates (as $H_2SO_4$) | High-volume filtration (7) | Turbidimetric (8) |
| Fluorides (total soluble, as HF) | Filtration plus gas absorption (9) | Thorium-alizarin lake titration (9) |
| Hydrogen sulfide | Gas absorption (4) | Methylene blue method (4) |

(b) The numbers following the reference standards in subsection (a) of this section refer to references contained in 139.4 of this Title (relating to references).

### 139.33 Incorporation of federal procedures.

Sampling and analytical procedures promulgated by the Administrator of the United States Environmental Protection Agency pursuant to the provisions of the Clean Air Act are hereby incorporated, by reference, as part of the techniques listed in 139.32 (a) of this Title (relating to sampling and analytical procedures).

## Subchapter B. MONITORING DUTIES OF CERTAIN SOURCES

### 139.51 Purpose

The intent of this Subchapter is to require the periodic monitoring of air contaminants emitted from certain sources which have, or are likely to have, a substantial impact on the maintenance of ambient air quality standards or may cause air pollution. The identification of sources subject to this Subchapter, or the establishment of a specific frequency of source emission monitoring in this Subchapter, shall not be construed to limit the Department's authority pursuant to Section 4 of the Act or Sections 127.12 and 127.22 of this Title (relating to contents of applications) to establish monitoring requirements for other sources, or additional monitoring requirements for sources subject to this Subchapter.

### Section 139.52 Monitoring methods and techniques.

Persons responsible for the operation of sources subject to monitoring requirements established by order, by condition of plan approval or permit, or pursuant to this Subchapter, shall:

(1) conduct source testing or air sampling and perform analyses in accordance with the requirements of Subchapter A of this Chapter, or shall install, operate, and maintain a device approved by the Department for installation in a flue for the purpose of continuous measurement of specific air contaminants; and

(2) perform visible emission observations in accordance with the methods for observing and recording visible emissions established pursuant to Chapter 123 of this Title (relating to standards for contaminants); provided, however, visible emissions discharged through a flue may also be monitored by use of a device approved by the Department for installation in a stack for the purpose of measuring opacity.

### Section 139.53 Filling monitoring reports.

(a) Persons responsible for the operation of sources subject to monitoring requirements established by order, by condition of plan approval or permit, or pursuant to this Subchapter, shall submit periodic reports of the results of any tests, samples, or observations conducted, obtained, or made in accordance with the methods or techniques referenced in Section 139.52 of this Title (relating to monitoring methods and techniques). Such reports shall be:

(1) submitted on forms supplied, or in a format specified by the Department;

(2) sworn by the person exercising managerial responsibility over the operation of the source for which monitoring is required;

(3) submitted on the schedule established by order,

condition of plan approval or permit, or this Subchapter; and

(4) submitted in duplicate to the Regional Air Pollution Control Engineer for the region of the Department in which the source is located.

(b) In addition to the information required by subsection (a) of this section, the Department may, by use of a standard form or by written notice, require information regarding test methods, test conditions, operating conditions of the source, or any other information which may be necessary to properly evaluate the results of emissions monitoring performed at a source.

### Section 139.61 Requirements.

(a) Persons responsible for the operation of any source included in any class of sources listed in the first column of Table I of this Chapter shall do the following:

(1) Conduct source tests, air sampling, and analyses or perform visual observations of the air contaminants specified by name or by reference to an applicable emission standard in the second column of Table I.

(2) Conduct the required tests, sampling, analyses, or observations at the frequency required by the third column of Table I.

(3) Submit monitoring reports in accordance with the requirements of Section 139.53 of this Title (relating to filing monitoring reports) at the freqquency specified in the fourth column of Table I.

(b) Table I follows:

TABLE I

| Class of Sources | Air Contaminants to be Monitored | Frequency of Testing, Sampling or Observations | Frequency of Filing Monitoring Reports |
|---|---|---|---|
| Coke oven batteries | 123.44(a)(1),(3),(4),(5),(6)&(7) | Daily during daylight | Quarterly |
| Pushing | 123.13(b) | Annual | Annual |
| Waste heat stack | 123.13(c) | Annual | Annual |

## SUBCHAPTER C

## REQUIREMENTS FOR CONTINUOUS IN-STACK MONITORING FOR STATIONARY SOURCES

### Section 139.101 General Requirements

The following are applicable to all continuous monitoring installations required or approved pursuant to Chapter 123 of this Title (relating to standards for contaminants and sources), Chapter 127 of this Title (relating to requirements for plan approval and operation) and Chapter 129 of this Title (relating to standards for sources).

1. The submittal procedures specified in the publication entitled "Continuous Source Monitoring Manual", (available from one Department) should be utilized to obtain Department approval. This publication includes: installation requirements, performance specifications, test procedures, reporting requirements, quality assurance requirements and administrative procedures for obtaining Department approval.

2. The monitoring system installation, certification and operation must be conducted under the direct supervision of persons qualified by training and experience.

3. The monitor systems may be designed to monitor source emissions or stack emissions provided that the representativeness of emissions can be verified. The method of conversion of monitor output to source or stack emissions must be approved by the Department.

4. The location of monitoring devices must be approved by the Department prior to installation.

5. The owner of a monitored source must maintain records containing monitor information and report data to the Department as specified in Section 139.102(2) of this Title (relating to references). The records must be maintained for two years and be available for inspection by Department personnel at any time.

6. The owner of a monitored source must provide permanent sampling facilities as specified in section 139.1 of this Title (relating to sampling facilities) to permit verification testing by the Department. For extractive monitors, calibration gas inlets must be available as near as possible to the monitor probe inlet to permit the Department to verify calibration of the monitoring system. All facilities must be approved by the Department prior to construction.

7. All verification source sampling for monitoring systems must be in accordance with the requirements of Subchapter A of Chapter 139 of this Title (relating to sampling).

8. A quality assurance program must be established and maintained by the owner or the monitored source. This program must be in accordance with the criteria specified in Section 139.102(1), (2) and (3) of this Title (relating to references).

9. The Department's approval will be based on the certification

and quality assurance criteria specified in Section 139.102(1), (2) and (3) of this Title (relating to references). Failure to utilize the specified procedures or to conduct the quality assurance program could result in denying or rescinding the Department's approval.

10. The owner of a monitored source must notify the Department any time that the monitoring system is inoperative for more than one hour during an air pollution episode as specified in Chapter 137 of this Title (relating to air pollution episodes). Such notice shall be given within 2 hours of the malfunction.

### Section 139.102 References.

The following are references referred to in this Subchapter:

1. Part 60 - Standards of Performance for New Stationary Sources, Subchapter C - Air Programs, Chapter I - Environmental Protection Agency, Code of Federal Regulations - Title 40.

2. Part 51, Appendix P - Requirements for the Preparation, Adoption and Submittal of Implementation Plans, Subchapter C - Air Programs, Chapter I - Environmental Protection Agency, Code of Federal Regulations - Title 40.

3. "Continuous Source Monitoring Manual," Commonwealth of Pennsylvania, Department of Environmental Resources, Bureau of Air Quality Control, P. O. Box 2063, Harrisburg, PA 17120.

### Section 139.103 Opacity Monitoring Requirements

The following applies to all sources monitoring opacity:

1. Opacity measurements must be converted to represent the stack exit opacity and the conversion method must be approved by the Department.

2. The selection of the monitor locations shall utilize the criteria in Performance Specification 1, Appendix B of Section 139.102(1) of this Title (relating to references).

3. Continuous monitoring systems for measuring opacity shall comply with Performance Specification 1, Appendix B of Section 139.102(1) of this Title (relating to references).

### Section 139.104 Sulfur Dioxide Monitoring Requirements for Combustion Sources

The following applies to all combustion sources monitoring sulfur dioxide for compliance under Section 123.25 of this Title:

1. Both sulfur dioxide and oxygen or carbon dioxide must be monitored to provide data to permit conversion of monitor data to the standards of pounds of sulfur dioxide per million BTU's of heat input. This conversion shall be performed by utilization of the "F

Factor" as specified in Subpart D of Section 139.102(1) of this Title (relating to references).

2. The representativeness of the emissions at the chosen monitoring location must be verified. The selection of the monitor locations shall utilize the criteria in Performance Specification 2 and 3, Appendix B of Section 139.102(1) of this Title (relating to references).

3. Continuous monitors for measuring sulfur dioxide emissions shall comply with Performance Specification 2, Appendix B of Section 139.102(1) of this Title (relating to references).

4. Continuous monitoring systems for measuring oxygen and carbon dioxide shall comply with Performance Specification 3, Appendix B of Section 139.102(1) of this Title (relating to references).

5. Manual sampling conducted in accordance with procedures in Subchapter A of Chapter 139 of this Title (relating to sampling) may be required if the Department determines that the monitoring system data is not accurate or if the owner of the monitored source does not conduct the quality assurance program specified in Section 139.102(1), (2) and (3) of this Title (relating to references).

6. Manual verification sampling of calibration gases for sulfur dioxide may be conducted in accordance with the sampling methods in Appendix A of Section 139.102(1) of this Title (relating to references).

### Section 139.105 Sulfur Dioxide Monitoring Requirements

The following applies to all sources other than those monitoring sulfur dioxide as required under Section 139.104 of this Title:

1. The monitor results must be expressed in terms of the applicable emission standard, i.e. ppm. the method to convert monitor data must be approved by the Department.

2. The selection of the monitor location shall utilize the criteria in Performance Specification 2, Appendix B of Section 139.102(1) of this Title (relating to references).

3. Continuous monitoring systems for measuring sulfur dioxide shall comply with Performance Specification 2, Appendix B of Section 139.102(1) of this Title (relating to references).

4. The owner of a monitored source must notify the Department when the monitoring system is inoperative for a consecutive time period greater than two days.

# CHAPTER 141. VARIANCES AND ALTERNATE STANDARDS

## Authority

## GENERAL

### 141.1 Imposing alternate standards authorized.

The Department may by order impose standards more stringent than those set forth in this Article for any source or class of sources, upon the petition of any person or upon its own motion, where:

(1) Such alternate standard is reasonable related to the attainment of any ambient air quality standard contained in this Article within the time limits required by the Clean Air Act for the attainment of such ambient air standard, or is reasonably related to the maintenance of any such ambient air standard.

(2) Such alternate standard can be attained through the proper use of best available technology; or,

(3) Such alternate standard is necessary to protect the public health, safety or welfare.

### 141.2 Granting temporary variances authorized.

(a) The Department may grant a temporary variance from any standard or requirement set forth in this Article upon the petition of the owner or operator of the air contamination source for which such a variance is sought.

(b) The Department shall grant any petition for a temporary variance, in whole or in part, upon a review of the petition and accompanying material, and upon any additional investigations which the Department may conduct, provided the Department finds that:

(1) Such action will not prevent or interfere with attainment or maintenance of any ambient air quality standard contained in this Article, within the time prescribed for the attainment of such ambient air quality standard by the Clean Air Act.

(2) The quantity and level of emissions from the source at the expiration of the temporary variance are likely to comply with the applicable standards of this Article;

(3) Such action is reasonable, considering the toxicity and other effects of such emissions on the public health, safety and welfare, the meteorological factors affecting the dispersion of the emissions, the land use characteristics of the areas affected by the emissions, efforts taken by the petitioner to comply with those orders and regulations of the Department that were in effect prior to the effective date of this Chapter and that are related to those contaminants which are the subject of the petition, the status of compliance of the petitioner, and any other relevant factors.

141.3 Conditions of variances.

A temporary variance may be granted upon such reasonable terms and conditions as the Department may specify, including, but not limited to, the following:

(1) The gradual reduction of emissions during the variance period;

(2) The reduction, cut back or alteration of operations giving rise to the emissions for which the variance is sought;

(3) The development of new air pollution control technology;

(4) The submission of periodic progress reports of the steps taken in reduce emissions; and

(5) The sampling of emissions and the monitoring and recording of the emissions and any operating conditions that may affect the emissions, at such locations, at such intervals of time and in accordance with such methods and procedures as the Department may prescribe, and the submission of the results thereof to the Department.

141.4 Period of variance.

(a) Any temporary variance granted pursuant to this Chapter shall be granted for a period of time not to exceed three (3) years, and may be renewed for only one (1) additional period of time not to exceed the period of time for which the variance was originally granted or two (2) years, whichever is shorter.

(b) A petition for the renewal of a temporary variance shall be submitted to the Department at least sixty (60) days prior to the expiration of the period for which the variance was originally granted, and shall comply with the requirements of 141.11 of this Title (relating to filing petitions for variances).

141.5 Stay of prosecution.

(a) A petition which complies with the requirements of 141.11 of this Title (relating to filing petitions for variances), and which is received by the Department within 6 months of the effective date of this Chapter, shall operate prospectively as an automatic stay of prosecution for violations of those provisions of this Article with respect to which the variance is sought, until one year after the effective date of this Chapter or until the Department takes action on such petition, whichever occurs first, except that the filing of a petition for a variance, or the grant thereof, shall not relieve the petitioner from full compliance with any orders and permits heretofore issued or any stipulations and agreements heretofore entered into by the Department, nor shall such filing in any way preclude the Department from pursuing any and all remedies available to it, at law or in equity, to enforce such orders, permits, stipulations or agreements.

(b) The filing of a petition for a renewal or extension of any existing variance shall in no case operate as a stay of prosecution and if the Department fails to act on any such petition before the expiration of the original variance period, then such petition shall be deemed denied in its entirety.

### 141.6 Revocation and modification of variance.

The Department may, for good cause, revoke, modify, amend or change, in whole or in part, any variance granted pursuant to this Chapter. Without intending to limit the generality of the immediately preceding sentence, the failure to perform, within the time specified for such performance, any condition or requirement attached to the grant of a variance, shall constitute sufficient cause to revoke such variance.

### 141.7 Air pollution episodes.

The provisions of this Chapter shall not be construed to prevent or limit the application of the provisions of Chapter 137 of this Title (relating to air pollution episodes).

## PETITION FOR VARIANCE

### 141.11 Filing.

(a) Unless provided otherwise by the Department, an original and two conformed copies of each petition for variance shall be filed with the Department.

(b) The petition shall include or be accompanied by the following information:

(1) The name, address and telephone number of the petitioner and any other person authorized to receive notices.

(2) The type and location of the operations giving rise to the emissions for which a temporary variance is sought, including a description of the process or activity giving rise to such emissions.

(3) The quantity and nature of such emissions.

(4) Each provision of this Article from which a temporary variance is sought.

(5) A detailed plan setting forth all steps the petitioner proposes to take to reduce such emissions to a level permitted by this Article, including a schedule indicating the dates upon which each intermediate step shall be completed and the date upon which full compliance with the standards and requirements of this Article shall be achieved.

(6) The reasons why the petitioner feels full compliance with the standards and requirements of this Article cannot be attained at any time prior to the date of full compliance set forth in petitioner's plan.

(7) Any and all other information and data which the Department may reasonably require.

141.12 Notice of filing.

(a) Any person filing a petition with the Department pursuant to 141.11 of this Title (relating to filing petitions for variances), which seeks a variance for a period in excess of eighteen (18) months from the date such petition is received by the Department, or a petition for the renewal or extension of a variance, shall advertise notice of the filing of the petition on at least three separate days in a prominent place and size in one newspaper of general circulation in the county in which the source for which the variance is sought is located.

(b) The advertisement required by subsection (a) of this section shall be completed within one week of the filing of the petition, and proof of said publication shall be filed with the Department within one week thereafter. No petition shall be entertained by the Department in the event of failure by petitioner to submit such proof of publication within the required time.

(c) In appropriate cases, the Department shall publish notice of the filing of applications in the Pennsylvania Bulletin.

141.13 Contents of notice.

The advertisement of notice of filing required by 141.12 of this Title (relating to notice of filing petitions for variances) shall include the following:

(1) Name and address of petitioner.
(2) Location and name of the plant or facility at which the source is located.
(3) A brief description of the source for which the variance is sought.
(4) The specific regulation from which the variance is sought.
(5) A brief statement of the reasons why a variance, as petitioned for, is necessary.
(6) A statement that any person may oppose the petition for the variance by filing a written protest with the Department of Environmental Resources, Bureau of Air Quality and Noise Control, Division of Abatement and Compliance, Room 907 Health and Welfare Building, Harrisburg, Pennsylvania 17105.

## PROTESTS

141.21 Filing.

A protest to a petition for a variance shall be filed with the Department in duplicated within 30 days of the last day that notice of the filing of such petition was advertised pursuant to 141.12 of this Title (relating to notice of filing petitions for variances).

### 141.22 Form.

Each protest shall include the following:

(1) Name, address and telephone number of the person filing such protest.
(2) Identification of the petition being opposed.
(3) Concise statement of the objections to the petition.
(4) Concise statement of the relevant facts upon which the objections are based.
(5) Name and date of publication alerting such person of the filing of the petition.

### 141.23 Consideration of protest.

(a) A protest is intended solely to alert the Department to the fact and nature of the objection of the protestant to the petition.

(b) The Department shall not be required to consider protests filed subsequent to the time designated in 141.21 of this Title (relating to filing of protests), but it may consider them if filed prior to action on the petition.

(c) It shall not be necessary for the Department to respond to any protest filed.

## CONFERENCES AND HEARINGS

### 141.31 When held.

Prior to taking action on any petition for a variance, the Department may, in its discretion, hold a fact finding conference or hearing at which the petitioner and any person who has properly filed a protest pursuant to 141.21 of this Title (relating to filing of protests) may appear and give testimony. provided, however, that in no event shall the Department be required to hold such a conference or hearing.

### 141.32 Location.

Conferences and hearings shall be held at such location as shall be most convenient to the participants and, if suitable, shall be held in an office of the Department.

### 141.33 Notice.

The petitioner, protestants and other participants shall be notified of the time, place and purpose of a conference or hearing in writing or by publication in a newspaper or the Pennsylvania Bulletin except where the Department determines that notification by telephone shall be sufficient.

141.34 Procedure.

(a) All conferences and hearings shall be conducted by a presiding officer.

(b) Except where provided otherwise in the notice or by the presiding officer, all conferences and hearings shall be conducted in an informal manner and the rules of evidence shall not be applicable.

(c) When provided in the notice, each participant may be required to present a written statement, together with any exhibits required, at the conference or hearing for the use of the participants. Persons unable to attend the conference or hearing may submit three copies of a written statement and exhibits within five (5) days thereafter.

(d) At any such conference or hearing, any participant, at his or her own cost, shall have the right to have the proceedings recorded verbatim by a stenographer, tape recorder or other means.

141.35 Record.

(a) Following the conference or hearing, the presiding officer shall prepare a summary which shall contain the following:

(1) Identification of the petition and nature and location of the project or activity to be approved.

(2) Names and addresses of each participant and whom they represent.

(3) Substance of opening and closing statement by presiding officer.

(4) Substance of the matters discussed or testified to and any agreements entered into by any of the participants.

(5) Such other relevant matters to inform the Department of the results of the conference or hearing.

(b) A copy of the summary shall be submitted upon request to each participant in the proceeding. Copies of the summary together with any transcript of the proceedings, written statements, exhibits and protests shall also be placed in the file in the appropriate office or offices in the Department for review by the Department prior to taking action on the petition.

## ACTIONS AND APPEALS

141.41 General

After reviewing the petition and any protests or record of any conference or hearing held, the Department shall take such action as shall be authorized by 141.2 - 141.4 of this Title (relating to granting of variances).

141.42 Form of action.

(a) The action of the Department on any petition for variance from the requirements of this Article shall be contained in a written order or notice directed to the petitioner.

(b) The order or notice shall contain or be accompanied by a written statement as to any appeal procedures that may be available to any person who may be affected by such action and shall designate the office where appeals shall be filed.

141.43 Notice of action.

(a) Orders and notices granting a petition for variance, in whole or in part, shall be served, upon the petitioner and each protestant who has complied with 141.21 and 141.22 of this Title (relating to filing of protests), personally or by mailing a copy to the address set forth in the petition or protest.

(b) The Department may also publish notice of its action in a newspaper of general circulation in the county where the source for which a variance was sought is located or in the Pennsylvania Bulletin which shall be deemed notice to any person except a petitioner or protestant. Such notice shall be effective as of the date of publication of such notice.

141.44 Appeals.

Any action taken by the Department on any petition for a variance filed pursuant to this Chapter may be appealed to the Environmental Hearing Board by the petitioner, by any protestant or by any other aggrieved person without regard to the nature of such person's interest in the action. All such appeals shall be governed by the provisions of Chapter 21 of this Title (relating to rules of practice and procedure).

# CITY OF PHILADELPHIA
# AIR MANAGEMENT REGULATIONS
# OF THE
# AIR POLLUTION CONTROL BOARD

# REGULATIONS OF THE AIR POLLUTION CONTROL BOARD
# CITY OF PHILADELPHIA, PENNSYLVANIA

These regulations are adopted pursuant to Section 5-302 of the Philadelphia Home Rule Charter, which reads as follows:

"The Air Pollution Control Board shall advise the Department of Public Health and the Board of Health on all matters pertaining to the control of air pollution and shall make reasonable regulations, not contrary to a statute or ordinance or to the regulations of the Board of Health."

These regulations are also adopted pursuant to Title 3, Air Management Code, of the Philadelphia Code, specifically, Section 3-302, which reads in part as follows:

"The Air Pollution Control Board shall have the following powers and duties:

(1) To promulgate regulations, implementing this Title, preventing degradation of air quality, preventing air pollution, eliminating air pollution nuisances and limiting, controlling, or prohibiting the emission of air contaminants to the atmosphere from any sources ..." and

(2) To promulgate regulations to establish objectives for the quality of community air, to establish areas where objectives are applicable, and limiting, prohibiting or otherwise controlling emissions to achieve this quality of air ..."

## REGULATION I

## GENERAL PROVISIONS

### Section I - Definitions

A. The following definitions are in the Air Management Code and apply to the regulations:

(1) Aerosol - A dispersion or suspension of small solid or liquid particles or any combination thereof in the air or other gaseous medium.

(2) Ashes - The residue from combustion, including cinders, flyash or any other solid material resulting from combustion, as well as partially combusted materials and unburned combustibles.

(3) Air Contaminant - Any smoke, soot, flyash, dust, cinders, dirt, noxious or obnoxious acids, fumes, oxides, gases, mists, aerosols, vapors, odors, toxic or radioactive substances, waste, particulate, solid, liquid or gaseous matter, or any other materials in the outdoor atmosphere.

(4) Air Pollution - The presence in the atmosphere of one or more air contaminants or combinations thereof in such quantities and of such duration that they are or may tend to be injurious to human, plant, or animal life, or property, of that interfere with the comfortable enjoyment of life or property or the conduct of business or other human activities.

(5) Air Pollution Nuisance - The emission or discharge of one or more air contaminants to the atmosphere meeting one or more of the following criteria:

- (a) In excess of emission standards promulgated by the Air Pollution Control Board;
- (b) In such quantity and of such duration that they do or may tend to:
  1. Interfere with health, repose, or safety;
  2. Cause severe annoyance or discomfort;
  3. Lessen food or water intake;
  4. Produce irritation of the upper respiratory tract;
  5. Produce symptoms of nausea;
  6. Be offensive, or objectionable, or both, to persons because of inherent chemical or physical properties;
  7. Be detrimental or harmful to health, comfort, recreation, living conditions, welfare, or safety;
  8. Cause injury or damage to real or personal property of any kind;
  9. Or interfere with the conduct of industry, commerce, or transportation.

(6) Board - means the Air Pollution Control Board.

(7) Cinders - Particles consisting of fused ash or unburned matter.

(8) Carbon Dioxide ($CO_2$) - A colorless, odorless gas at standard conditions which has the molecular formula $CO_2$.

(9) Commercial Fuel - Liquid or gaseous fuel normally produced, manufactured, used, or sold for the purpose of creating useful heat.

(10) Condensed Fumes - Minute solid particles generated by the condensation of vapors from solid matter after volatilization from the molten state, or generated by sublimation, distillation, calcination, or chemical reaction when these processes create airborne particles.

(11) Department - The Department of Public Health, Health Commissioner or any authorized representative thereof.

(12) Dust - Solid particles projected into the air and capable of temporary suspension therein.

(13) Flyash - Particulate matter capable of being gasborne or airborne and consisting essentially of fused ash and/or burned or unburned material.

(14) Fuel - Any combustible matter.

(15) Fuel Burning Equipment - Any device, machine, mechanism or structure used in the process of burning fuel for indirect heating.

(16) Fuel Merchant - Any person who stores, offers for sale or sells commercial fuel in retail or wholesale trade, excluding agents, brokers, wholesalers, distributors or producers who sell commercial fuel for use in single steam and/or electric power generating facilities having rated hourly capacities that equal or exceed two hundred (200) million BTU gross heat input, or in a group of steam and/or electric power generating facilities at one location having a combined rated capacity which equals or exceeds four hundred and fifty (450) million BTU gross heat input.

(17) Fuel Oil - A liquid or liquefiable petroleum product burned for lighting or for the generation of heat or power and derived directly or indirectly from crude oil.

(18) Household Appliances - Any electric or gas operated device, commonly used in a dwelling, other than incinerators, heating systems, or hot water heating systems.

(19) Incinerators - All devices, including but not limited to crematories, intended or used for the destruction of garbage or other combustible materials by means of burning, or for the salvage of materials by means of burning of extraneous materials.

(20) Installation, Equipment or Devices - Any assembly or elements or components the operation of which does or may directly or indirectly affect the emission of air contaminants to the atmosphere.

(21) Minor Repairs and Alterations - Repair or alteration of any part of any existing installation, equipment, or device which does not materially alter the quantity or character of discharge or emission into the atmosphere of air contaminants.

(22) Mist - A suspension of any finely-divided liquid in any gas or the atmosphere.

(23) Non-Commercial Fuel - Liquid or gaseous fuel not normally produced, manufactured, used or sold for the purpose of creating useful heat.

(24) Odor - Smells or aromas which are unpleasant to persons, or which tend to lessen human food and water intake, interfere with sleep, upset appetite, produce irritation of the upper respiratory tract, or create symptoms of nausea, or which by their inherent chemical or physical nature, or method of processing, are or may be detrimental or dangerous to health. Odors and smell are used herein interchangeably.

(25) Open Fires - Any fire from which the products of combustion are emitted directly into the atmosphere without passing through a stack or chimney.

(26) Particulate Matter - Any material, liquid or solid, except uncombined water, which exists in a finely divided form at standard conditions.

(27) Person - Any individual, natural person, syndicate, association, partnership, firm, corporation, institution, agency, authority, department, bureau, or instrumentality of federal, state or local government or other entity recognized by law as a subject of rights and duties.

(28) Smoke - Small gas-borne particles resulting from combustion, consisting of carbon, ash, and other material.

(29) Soot - Agglomerated particles consisting mainly of carbonaceous material.

(30) SSU Viscosity - The number of seconds it takes 60 cubic centimeters of an oil to flow through the standard orifice of a Saybolt Universal Viscometer at 100° F.

(31) Stack or Chimney - A flue, conduit or opening permitting particulate or gaseous emissions into the open air, or constructed or arranged for such purpose.

(32) Standard Conditions - A gas temperature of 60 degrees Fahrenheit and a gas pressure of 14.7 pounds per square inch absolute.

(33) Sulfur Dioxide ($SO_2$) - A colorless gas at standard conditions which has the molecular formula $SO_2$.

(34) Vapor - The gaseous form of a substance which is in the liquid or solid state at customary atmospheric temperature and pressure.

(35) Viscosity - The measure of a fluid's resistance to flow.

B. In addition to definitions provided in the Air Management Code, the following definitions apply to these regulations:

(1) Anthracite Coal - A hard, black, lustrous coal containing 85-95% carbon characterized by its small percentage of volatile matter, high specific gravity, hardness, nearly metallic luster, rich black color, and semi-conchoidal fracture. Volatile matter is usually less than seven (7) percent.

(2) Bituminous Coal - A coal containing 70-85% carbon leaving usually more than 7 percent volatile matter.

(3) Dosage - Is the summation of the hourly averages of the concentration of a pollutant in the atmosphere for the specified time in hours.

(4) Fugitive Dust - Is any dust released or dispersed into the air by natural forces or mechanical processes which escapes from the premises where the dust originated.

(5) PPM-Hrs - (Parts per million-hours). Is the sum of the average ppm hourly dosages measured for the number of hours stated.

(6) Process Weight - Is the total weight of all materials introduced into any specific process which process may cause any discharge into the atmosphere. Solid fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not. "The Process Weight Per Hour' will be derived by dividing the total process weight by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle.

(7) Process - Is any method, reaction, or operation whereby materials introduced into the process undergo physical change (i.e., the size, shape, appearance, state or other physical properties of the material are altered without changing chemical composition) or chemical change (i.e., a substance or substances with different chemical composition or properties are formed or created). A specific process, independent or production unit, is one which includes all of the equipment and facilities necessary for the completion of the transformation of the materials to produce a physical or chemical change. There may be several specific processes in series necessary to the manufacture of a product. However, where there are parallel series of specific processes, the similar parallel specific processes shall be considered as a single specific process for emission regulation.

(8) RUD-Hrs./1,000 ft. - (Reflectance units of dirt shade-hours per 1,000 linear feet of air) is the sum of the hourly RUDs/1,000 ft. measured for the number of hours stated. RUDs/1,000 ft. are the measured percentage reflectance of the filter tape reduced by dividing by the number of thousands of feet of air actually drawn through the tape in the test.

(9) Sailing Index is an expression of the measurement of the light reflectance of a stain produced on paper tape through which a set rate of air volume has passed for a period of time. The standard for this expression in these regulations is RUD-hrs./1,000 ft.

## Section II – Source Registration and Emission Reporting

### A. Registration of Emission Sources:

(1) Installation Permits:

(a) No person shall build, erect, install, alter, or replace any article, machine, equipment, device, or other contrivance or appurtenance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants until an Air Management Permit, as specified by the Air Management Code, has been obtained for such installation and construction. The permit shall remain in effect as specified by the Air Management Code.

(b) Within 60 days of the receipt of an application for an installation permit, the Department shall act to approve or disapprove the application or notify the applicant that additional information is required.

(2) Operating Licenses:

(a) The person responsible for each source of emission of air contaminants must have a current operating license as specified by the Air Management Code.

(b) The application for a license to operate a new installation shall be filed at least two weeks in advance of the date of initial operation. Prior to the operation of the installation, the Department shall approve or disapprove the application, or notify the applicant that the installation is incomplete with approval withheld pending completion or that a period of demonstration or test operation is required before approval may be granted.

(3) Submission of Source Information:

(a) The Department shall establish procedures and forms for use in the review of applications for permits and licenses. These procedures shall prescribe the information to be supplied in order to determine if the proposed installation will conform to these regulations.

(b) Information to be given in the permit or license application shall include, but not be limited to, the following:

(1) Description of the proposed installation.

(2) Design capacity of the process equipment including process weight and process weight per hour.

(3) Expected physical and chemical composition of the emissions and pertinent design criteria such as discharge rate, concentration, volume and temperature.

(4) Type and general characteristics of the air pollution control equipment.

(5) Description and evaluation of the location of the discharge point of emissions of air contaminants and other factors relating to the dispersion and diffusion of air contaminants in the atmosphere.

(6) The relation of the discharge point to nearby structures and topography if necessary to appraise the possible effects of the emissions.

(7) Type and general characteristics of any equipment for monitoring emissions and related alarm and recording systems.

Any additional information, plans, specifications, evidence, or documentation that the Department may require shall be furnished upon request.

(4) Conditions of Source Approval:

(a) Approval to construct, install, alter, replace, or operate any source of emission shall be granted only upon demonstration to the satisfaction of the Department that the source will not violate any provision of the Air Management Code or Regulations of the Air Pollution Control Board or prevent or interfere with attainment or maintenance of any national ambient air quality standard.

(b) Issuance of a permit or license shall not exempt any person from prosecution for violation of the Air Management Code, Regulations of the Air Pollution Control Board or any applicable laws of the Commonwealth of Pennsylvania or the United States Government. Where regulations are amended or new regulations adopted, the holders of permits and licenses issued prior to the effective date thereof shall comply with any new requirements within the period of time provided therein.

(5) Reporting Changes to Existing Installations:

(a) Where it is planned to take any approved installation, equipment, or device out of service for any reason, except for normal plant shutdowns, the Department shall be notified at least three days in advance. Where the reason for being out of service is breakdown, malfunction or similar emergency which may increase emissions, the Department shall be notified by telephone immediately with a written confirmation in 24 hours.

(b) No person shall change any installation such that the registered information concerning it is no longer accurate without first notifying the Department.

(c) Where a change of ownership occurs at any approved installation, the new owner shall notify the Department within 30 days of the change of ownership.

B. Emission Reporting:

(1) Recording and Submission of Emission Information:

(a) In addition to the provisions and requirements of Section II, A, the person responsible for any source of emission shall, upon notification from the Department, maintain such records as will disclose the nature, effects, extent, quantity or degree of air contaminants which are or may be discharged from such source of any other information as may be deemed necessary by the Department to determine compliance with applicable emission limitations or other control measures as well as the relative contribution of such source to air quality.

(b) The required information shall be summarized on source reporting forms supplied by the Department and shall be complete. The required information shall be submitted within 30 days after the receipt of a source reporting form, unless a time extension has been granted by the Department.

(c) Information recorded and copies of the source reporting forms submitted to the Department shall be retained by the person responsible for each source emission for two years after the date on which the pertinent report was submitted.

(2) Availability of Emission Data:

Emission data obtained from source reporting forms submitted to and verified by the Department will be correlated with applicable emission limitations and other control measures. All such emission data will be available for public inspection at the Department during normal business hours.

C. Confidential Information:

Any records, reports, information, or particular part thereof, other than emission data, relating to secret processes, methods of manufacture or production, or otherwise entitled to protection as trade secrets, provided to, required or obtained by the Department shall be kept confidential.

## Section III - Testing and Test Methods

A. The Department shall establish standard methods for the sampling and analysis of emissions to determine compliance with these regulations.

These standards shall be published and made available upon request at the office of the Department.

B. Requirements for testing. The Department may require any person to conduct, or have conducted, testing to determine compliance with these regulations. The Department may at its option witness or conduct such tests. Such testing will be done at a reasonable time, and all information gathered during a testing operation will be provided to both parties.

When the Department conducts or has such tests conducted, the person shall provide such sampling facilities, exclusive of instruments and sensing devices, as may be necessary to determine the quantity and character of emissions.

## Section IV - Availability of Technology

Any person who believes that there does not exist technology adequate for an existing installation to meet the requirements of these regulations may request within six months of the effective date, the Commissioner of Health, or his designated representative, to appoint an advisory committee of technical experts. The Commissioner of Health shall appoint the committee within two weeks of the receipt of such a request. The committee shall review the process and make a recommendation to the Department within 90 days, from the date of their appointment. This recommendation may be any of the following:

A. Compliance with these regulations.

B. Adoption of a regulation proposed by the committee governing the process, or processes, in question which provides for the application of known technology to control emissions.

C. Approval of a compliance schedule which considers any unusual problems in adapting known technology to the process in question, but not to exceed two years.

If the committee fails to make a report and recommendation, this regulation shall apply.

The committee report shall be forwarded to the Air Pollution Control Board, by the Department within two weeks of its receipt from the committee together with its own recommendations, for consideration and action. For a period of 150 days from the appointment of the committee, the Health Commissioner may withhold prosecution.

## Section V - Improvement and Plan

Where an improvement plan and compliance schedule has been approved, as provided in the Air Management Code (Section 3-301) (17), the compliance schedule in the approved plan shall govern.

## Section VI - Pre-Existing Regulations

All existing regulations of the Air Pollution Control Board not in conflict with these regulations shall remain in force.

## Section VII - Circumvention

No person shall build, erect, install or use any article, machine, equipment or other contrivance, the sole purpose of which is to dilute or conceal an emission without resulting in a reduction in the total release of air contaminants to the atmosphere.

## Section VIII - Severability

The provisions of these regulations are severable and if any provision, sentence, clause, section or part thereof shall be held illegal, invalid, unconstitutional or inapplicable to any person or circumstances, such illegality, invalidity, unconstitutionality or inapplicability shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of the ordinance or their application to him or to other persons and circumstances. It is hereby declared to be the legislative intent that these regulations would have been adopted if such illegal, invalid or unconstitutional provision, sentence, clause or part had not been included therein, and if the person or circumstances to which the ordinance or any part thereof is inapplicable had not specifically been exempted therefrom.

## Section IX - Effective Date

Except as otherwise provided, these regulations shall become effective upon adoption. The owner of any source of emission, in existence or under construction at the time of adoption, shall notify the Department, within six months from the effective date, of his intent to discontinue any operations or activities which cause any emission that result in an emission in violation of these regulations or to control such emission to the extent required by these regulations, or that the emission is in compliance. Within a period of twelve months from the effective date, compliance shall be obtained at all sources of emission within the scope of these regulations.

## Section X - Compliance with Regulations of the Environmental Quality Board of Pennsylvania

No person shall discharge into the atmosphere any air contaminant in excess of the limits established in the regulations of the Environmental Quality Board of Pennsylvania, or shall utilize air contaminant control of less efficiency than required by the regulations of the Environmental Quality Board of Pennsylvania.

# REGULATION II

## AIR CONTAMINANT AND PARTICULATE MATTER EMISSIONS

### Section I

A. In addition to the previous citations, these regulations are adopted pursuant to Title 3, Air Management Code, which reads in part as follows:

(1) "Section 3-202, Open Fires:

No person shall ignite, burn or permit the continuation of the burning of garbage, refuse, or other waste material, demolition materials, leaves, grass, weeds, trees, batteries, wire, tires, cars, vehicles, or parts thereof, or any other combustible material in an open fire. Any open burning for salvage purposes is prohibited. This requirement shall not apply to outdoor home cooking. A special exception may be made by order of the Commissioner of Health where the First Commissioner certifies an emergency exists which endangers the public safety, and the Health Commissioner finds that no practical alternative method of disposal of hazardous or flammable materials exists. The conditions for allowing open fires shall be approved by both the Health and Fire Commissioners."

(2) "Section 3-302, Powers and Duties of the Air Pollution Control Board:

To promulgate regulations, implementing this Title, preventing degradation of air quality, preventing air pollution, eliminating air pollution nuisances and, limiting, controlling, or prohibiting the emission of air contaminants to the atmosphere from any sources. Such regulations may include, but are not limited to, the following:

(a) The concentration, volume, weight, and other characteristics of emissions of air contaminants to the atmosphere, the circumstances under which such emissions are permitted and the degree of control of emissions of air contaminants required;

(b) The emissions of air contaminants to the atmosphere and related actions which are prohibited;

(c) The types and kinds of control measures and actions, equipment, storage and handling facilities, processes and systems, including specifications and/or performance requirements, which may be required to control emissions of air contaminants to the atmosphere.

(d) The characteristics of fuels and wastes which may be combusted in the city, insofar as such characteristics may affect the emissions of air contaminants to the atmosphere.

(e) The density, opacity and duration of discharges and emissions of air contaminants to the atmosphere which obscure and reflect light, and the establishment of methods for evaluating density, opacity, equivalent opacity or density."

B. These regulations control, and/or prohibit, the discharge or escape of certain air contaminants and particulate matter in the atmosphere.

## Section II - Open Fires

A. No person shall ignite, burn or permit the continuation of the burning of garbage, refuse, or other waste material, demolition material, leaves, grass, weeds, trees, batteries, wire, tires, cars, vehicles, or parts thereof, or any other combustible material in an open fire. Any open burning for salvage purposes is prohibited. Any person who operates, owns or controls premises where junk cars, demolition materials, refuse or other salvaged or waste materials are stored, processed or deposited, shall take all necessary measures to prevent fires and to extinguish any fires which may occur. Fire prevention measures shall include, among others, security measures to exclude unauthorized persons from entering upon the premises.

If a fire occurs when the premises are unattended, the Department may order fencing and/or a watchman to be employed by the owner, operator, or other person who controls the premises, for periods, when there are no other attendants.

B. It shall be prima facie evidence that the person who owns or controls property on which open burning occurs has caused or permitted said open burning.

## Section III - Toxic or Radioactive Air Contaminants

No person shall discharge into the atmosphere any toxic or radioactive air contaminant except where a request has been filed with the Department and approval granted by the Department which shall be based on a determination by the Department that the quantity, concentration, and duration of such emissions will not create a health hazard.

## Section IV - Visible Emissions

(1) No person shall discharge into the atmosphere from any single source of emission whatsoever any air contaminant, except uncombined water,

(a) For a period or periods aggregating more than three minutes in any one hour which:

    (1) Is darker in shade than that designated as No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines, or

    (2) Is darker than a comparable standard using such other charts or devices as the Department determines to be equivalent thereto; or

(b) For any period, which is darker than No. 3 on the Ringelmann Chart, or its equivalent; or

(c) Of such opacity as to obscure an observer's view to an equal or greater degree than either (a) or (b) above.

(d) The provisions of (a) above, do not apply to incinerators. Incinerators are regulated under the provision of Air Management Regulation XI, Control of Emissions from Incinerators.

(2) The provisions of (1) above shall apply to visible emissions of air contaminants that are white, black, shades of grey or colored.

(3) Trained employees certified by the Department may make observations to determine compliance with the provisions of (1) and (2) above without direct reference to standards.

Section VI - Selection of Fuel for Particulate Matter Emission Control

The fuel used shall be compatible with the burning equipment and the furnace or boiler. Where there occur repeated violations of Section IV or V, above, the Department may order the use of a specific alternate fuel.

Section VIII - Fugitive Dust

No person shall cause or permit the handling, transporting, storing, or disposing of any substance or material which is likely to be scattered by the wind, or is susceptible to being wind-borne, without taking effective precautions or measures to prevent air contamination. No person shall operate or maintain, or allow or cause to be operated or maintained, any premises, open area, right of way, storage piles, or vehicle, or any construction, alterations, demolition, or wrecking operation, or any other enterprises, which involves any material or substance likely to be scattered by the wind, or susceptible to being wind-borne, without effective precautions or measures to prevent air contamination. No person shall maintain, conduct, or use, or cause to be maintained, conducted, or used, any parking lot, or similar areas, unless the lot, area, or roadway is maintained in such manner as to prevent air contamination.

TABLE 1

| Process Wt./hr.(lbs.) | Maximum Weight Disch./hr. (lbs.) |
|---|---|
| 50 | .24 |
| 100 | .46 |
| 150 | .66 |
| 200 | .85 |
| 250 | 1.03 |
| 300 | 1.20 |
| 350 | 1.35 |
| 400 | 1.50 |
| 450 | 1.63 |
| 500 | 1.77 |
| 550 | 1.89 |
| 600 | 2.01 |
| 650 | 2.12 |
| 700 | 2.24 |
| 750 | 2.31 |
| 800 | 2.43 |
| 850 | 2.53 |
| 900 | 2.62 |
| 950 | 2.72 |
| 1000 | 2.80 |
| 1100 | 2.97 |
| 1200 | 3.12 |
| 1300 | 3.26 |
| 1400 | 3.40 |
| 1500 | 3.54 |
| 1600 | 3.66 |
| 1700 | 3.79 |
| 1800 | 3.91 |
| 1900 | 4.03 |
| 2000 | 4.14 |
| 2100 | 4.24 |
| 2200 | 4.34 |
| 2300 | 4.44 |
| 2400 | 4.55 |
| 2500 | 4.64 |
| 2600 | 4.74 |
| 2700 | 4.84 |
| 2800 | 4.92 |
| 2900 | 5.02 |
| 3000 | 5.10 |
| 3100 | 5.18 |
| 3200 | 5.27 |
| 3300 | 5.36 |
| 3400 | 5.44 |
| 3500 | 5.52 |
| 3600 | 5.61 |
| 3700 | 5.69 |
| 3800 | 5.77 |
| 3900 | 5.85 |
| 4000 | 5.93 |
| 4100 | 6.01 |
| 4200 | 6.08 |
| 4300 | 6.15 |
| 4400 | 6.22 |
| 4500 | 6.30 |
| 4600 | 6.37 |
| 4700 | 6.45 |
| 4800 | 6.52 |
| 4900 | 6.60 |
| 5000 | 6.67 |
| 5500 | 7.03 |
| 6000 | 7.37 |
| 6500 | 7.71 |
| 7000 | 8.05 |
| 7500 | 8.39 |
| 8000 | 8.71 |
| 8500 | 9.03 |
| 9000 | 9.67 |
| 10000 | 10.00 |
| 11000 | 10.63 |
| 12000 | 11.28 |
| 13000 | 11.89 |
| 14000 | 12.50 |
| 15000 | 13.13 |
| 16000 | 13.74 |
| 17000 | 14.36 |
| 18000 | 14.97 |
| 19000 | 15.58 |
| 20000 | 16.19 |
| 30000 | 22.22 |
| 40000 | 28.3 |
| 50000 | 34.3 |
| 60000 or more | 40.0 |

## REGULATION III

## THE CONTROL OF EMISSIONS OF OXIDES OF SULFUR COMPOUNDS

### Section I.

A. In addition to the above citations, these regulations are adopted pursuant to Title 3, the Air Management Code, which reads in part as follows:

"Section 3-207, Sale of Fuel Oil

(1) Commercial Fuel Oil

(a) On and after the effective dates listed therein no fuel merchant shall store, offer for sale, sell, deliver for use or exchange in trade, for use in Philadelphia, and no person shall use commercial fuel oils which contain sulfur in excess of the percentages by weight set forth in the following table:

| Grades of Commercial Fuel Oil | SSU Viscosity at 100°F. | Percent Sulfur by Weight Effective 5-1-70 | Effective 10-1-72 | Effective 4-1-78 |
|---|---|---|---|---|
| No. 2 and lighter | Less than or equal to 45 ............... | 0.3% | 0.3% | 0.2% |
| No. 4 | Greater than 45 but less than 145 ....... | 0.7% | 0.4% | 0.3% |
| No. 5, No. 6 and heavier | Equal to or greater than 145 ............ | 1.0% | 0.5% | 0.5% |

(b) The provisions of (a) above shall not apply in any case in which it is demonstrated to the Department that sulfur dioxide emissions, caused by the combustion of commercial fuel oils, from any stack or chimney into the outdoor atmosphere, can be controlled to levels that, on and after the effective dates listed herein, do not exceed at any time those quantities of sulfur dioxide, expressed in pounds per one (1) million BTU gross heat input, set forth in the following table:

| Grade of Commercial Fuel Oil | SSU Viscosity at 100°F. | Permissible $SO_2$ Emissions (Pounds $SO_2$ per Million BTU Gross Heat Input) Effective 5-1-70 | Effective 10-1-72 | Effective 4-1-78 |
|---|---|---|---|---|
| No. 4 | Greater than 45, but less than 145 ....... | 0.74 lbs. | 0.42 lbs. | 0.30 lbs. |
| No. 5, No. 6 heavier | Equal to or greater than 145 ............ | 1.1 lbs. | 0.52 lbs. | 0.52 lbs. |

(2) Non-Commercial Fuel

(a) No person shall cause, suffer, allow or permit sulfur dioxide, caused by the combustion of non-commercial fuel or the combustion of non-commercial and commercial fuel mixtures, to be discharged from any stack or chimney into the outdoor atmosphere in excess of the following limits, expressed as ppm by volume adjusted to twelve (12) percent carbon dioxide by volume, or equivalent method approved by the Department:

| | |
|---|---|
| Annual Average | 250 ppm |
| Maximum Monthly Average | 310 ppm |

(b) Where a single manufacturing facility contains multiple stacks or chimneys for discharge of flue gases from burning non-commercial fuels or non-commercial and commercial fuel mixtures, the emissions from any single stack may exceed the $SO_2$ concentration limits given in (2) (a) provided that it can be satisfactorily demonstrated to the Department that:

(1) The emission rate of sulfur dioxide from non-commercial fuel combustion on a total weight basis for the facility will not exceed that allowed by (2) (a), and

(2) The ground level concentrations of sulfur dioxide at any point in the neighborhood, area, or region caused by the combustion of all non-commercial fuel at the facility shall not exceed those concentrations that would result from compliance with (2) (a), and

(3) The concentration of $SO_2$ emitted from any such stack does not exceed any limit imposed by regulations of the State of Pennsylvania or the U.S. Environmental Protection Agency, and

(4) Compliance with (2) (b) shall not prevent the achievement or maintenance of any national air quality standard for $SO_2$ established by the Environmental Protection Agency.

(c) Any person responsible for the discharge of $SO_2$ caused by the combustion of non-commercial fuel or the combustion of non-commercial and commercial fuel mixtures from any stack or chimney as provided for in (2) (a) and (2) (b) shall submit a detailed report to the Department at least once every month, providing fuel usage and emissions information sufficiently adequate to determine compliance with this section.

(3) Exemptions

(a) The provisions of this section shall not apply to commercial fuel used by ocean-going vessels.

"Section 3-302, Power and Duties of the Air Pollution Control Board

(1) To promulgate regulations implementing this Title, preventing degradation of air quality, preventing air pollution, eliminating air pollution nuisances and, limiting, controlling, or prohibiting the emission of air contaminants to the atmosphere from any source. Such regulations may include, but are not limited to, the following:

(a) The concentration, volume, weight, and other characteristics of emissions of air contaminants to the atmosphere, the circumstances under which such emissions are permitted and the degree of control of emissions of air contaminants required;

(b) The emissions of air contaminants to the atmosphere and related actions which are prohibited;

(c) The types and kinds of control measures and actions, equipment, storage and handling facilities, processes and systems, including specifications and/or performance requirements, which may be required to control emissions of air contaminants to the atmosphere.

(d) The characteristics of fuels and wastes which may be combusted in the city, insofar as such characteristics may affect the emissions of air contaminants to the atmosphere."

These regulations control, and/or prohibit, the discharge or escape of oxides or sulfur compounds to the atmosphere and control and/or prohibit, the sulfur content of fuels burned in the City of Philadelphia. All available measures shall be taken to prevent the emission of oxides of sulfur to the atmosphere, but in no event shall the measures employed be less effective than those in the following sections.

Section II. Control of Emissions of Sulfur Compounds

A. No person shall cause or permit an emission from a specific source of oxides of sulfur calculated as sulfur dioxide ($SO_2$) which results in ground level concentrations at any point in excess of 3.0 ppm (volume) at any time, an average 0.5 ppm (volume) for a 15 minute period, or an average of 0.1 ppm (volume) in any 8 hour period.

B. Except as provided in Section 3-207 of Title 3, no person shall cause or permit the emission of oxides of sulfur from a specific source or process in excess of 0.1 per cent by volume. Within two years, the emission rate shall be limited to 0.05 per cent by Volume. Dilution or diffusion of exhaust gases is not an acceptable means of meeting this requirement.

C. Compliance with these provisions shall be determined by standard methods established by the Department which may include procedures for sampling and analysis or for stoichiometric calculations.

## Section III. Control of Sulfur in Fuels

A. No person shall store, offer for sale, sell, deliver for use, or exchange in trade for use in Philadelphia, and no person shall burn any fuels in the City of Philadelphia, except as provided in (2) below, the sulfur content of which exceeds the following:

(1) Fuel Oil shall not exceed the content limits of Section 3-207 of Title 3 (see above).

(2) Coal shall not exceed the following content limits:

(a) Bituminous Coal shall not exceed two per cent by weight after May 1, 1970, one per cent by weight after July 1, 1971, and 0.3 per cent by weight after October 1, 1972.

(b) Anthracite Coal shall not exceed 0.7 per cent by weight after May 1, 1970, and 0.3 per cent by weight after October 1, 1972.

B. For those installations where equipment or processes are used to reduce the emissions from the burning of fuels with a higher sulfur content than that specified in (1) above, the emissions shall not exceed that which would result from the use of the fuels specified in (1) above. (The equipment and/or process must be approved by the Department.)

C. Where the delivery of low sulfur fuel is interrupted because of accident or other emergency conditions, the Department may authorize the use of an alternate fuel supply, containing the least amount of sulfur available, for a period not to exceed two weeks.

A longer period of time may be authorized by the Department only after review and recommendation by the Air Pollution Control Board.

# AIR MANAGEMENT REGULATION IV

## GOVERNING AIR POLLUTION CONTROL MEASURES DURING HIGH AIR POLLUTION EPISODES

## Section I - Definitions

A. In addition to definitions provided in the Air Management Code, the following definitions apply to this Regulation:

COH Units - This is an abbreviated form for co-efficient of haze and is a measurement derived from the transmittance of light through a paper tape, and normalized to 1000 linear feet of air. The co-efficient of haze is derived from transmission by the formula"

$COH-\log_{10}(\frac{1}{T})$.

Oxidants - This is a major class of chemical compounds which act as an indicator of photochemical smog. Ozone and perozyacyl nitrates are the principal identifiable oxidants in air.

Photo-Reactive Organic Material - Any organic materials which will react with oxygen, excited oxygen, ozone and/or other free radicals generated by the action of sunlight on components in the atmosphere giving rise to secondary contaminants and reaction intermediates in the atmosphere which can cause detrimental effects.

Section II - Declaration of Conditions

The Health Commissioner or his designated representative shall declare the existence of an Air Pollution Stage I, Stage II and/or an Air Pollution Emergency in all or any part of the City under the following conditions:

A. "Forecast" exists when an atmospheric stagnation advisory is issued by the National Weather Service. This initiates an internal watch by the Department.

B. Stage I - When a 36-hour stagnation forecast is received from the National Weather Service and one or more of the following Air Pollutant levels exist at any air quality monitoring station in Philadelphia:

(1) Sulfur Dioxide in excess of 0.3 ppm in a six hour moving average, or

(2) Particulate in excess of 4.0 COH units in a six hour moving average, or

(3) Product of Sulfur Dioxide and Particulate twenty-four hour moving average in excess of 0.3 ppm-COH, or

(4) Nitrogen Dioxide in excess of 0.2 ppm in a twenty-four hour moving average.

C. Stage II - When one or more of the following air pollutant levels exist at any air monitoring station in Philadelphia:

(1) Sulfur Dioxide in excess of 0.5 ppm in a six hour moving average, or

(2) Particulate in excess of 6.0 COH units in a six hour moving average, or

(3) Product of Sulfur Dioxide and Particulate twenty-four hour moving average in excess of 0.9 ppm-COH, or

(4) Carbon Monoxide in excess of 30 ppm in an eight hour moving average, or

(5) Total Oxidants in excess of 0.25 ppm in a four hour moving average, or

(6) Nitrogen Dioxide in excess of 0.3 ppm in a 24 hour moving average.

D. Emergency - When one or more of the following levels exist at any air monitoring station in Philadelphia:

(1) Sulfur Dioxide equal to or exceeding 0.6 ppm in a twenty-four hour moving average, or

(2) Particulate equal to or exceeding 7.0 COH units in a twenty-four hour moving average, or

(3) Product of Sulfur Dioxide and Particulate twenty-four hour moving average equal to or exceeding 1.4 ppm-COH, or

(4) Carbon Monoxide equal to or exceeding 40 ppm in a eight hour moving average, or

(5) Total Oxidants equal to or exceeding 0.35 ppm in a four hour moving average, or

(6) Nitrogen Dioxide equal to or exceeding 0.4 ppm in a twenty-four hour moving average.

E. A localized or general Stage I, Stage II, or Emergency condition may be called by the Health Commissioner or designated representative regardless of the levels set forth above, when in his opinion, a threat to public health from air pollution exists. This Regulation may be implemented when the above stated levels are reached at any representative air quality monitoring station outside of Philadelphia, but within the Philadelphia area air quality region as designated by the Environmental Protection Agency.

### Section III - Termination of Conditions

Termination of any stage of an air pollution episode shall occur when all the criteria no longer exist for that stage and shall not likely reoccur. At that time, the next lower status shall be in effect.

### Section IV - Alert and Notification System by the Health Commissioner and the Emergency Coordinator.

A. The Department shall maintain daily contact with the National Weather Service to ascertain the development of meteorological conditions. During periods of unfavorable meteorological conditions contact will be made at least once each 12 hours. During such periods, the Department shall periodically contact surrounding jurisdictions to coordinate regional response to the high air pollution levels.

B. When the Commissioner of Health, or his designated representative, declares any of the high air pollution conditions enumerated in Section II, he shall also notify the Emergency Coordinator of the City of Philadelphia. The Emergency Coordinator or his designated representative shall forthwith proceed to take actions necessary to implement the requirements of this Regulation until the declared episode has been terminated by the Commissioner of Health, or his designated representative.

C. During Air Pollution Stage I, Stage II and Air Pollution Emergency, the Emergency Coordinator or his designated representative will release to the news media the levels of pollutants in the City, the episode condition reached, and any other information or any orders required to effect a reduction in emissions and protect public health.

D. Establishments with emission reduction plans will be notified of the existence of high air pollution conditions through the mass media, properly identified telephone calls, or contact with the Emergency Coordinator or his designated representative.

## Section V - Advance Preparation for High Air Pollution Episodes

A. Emission reduction plans are required for each business or other establishment which emits 100 tons of pollutants per year or more, or is designated a major source or a major user of electricity by the Department. Those businesses or other establishments which are not required to submit plans shall develop an internal procedure to meet the objectives and requirements set forth in Tables I, II, and III. Such plans shall specify measures which will be taken to reduce air contaminant emissions during episode conditions. These plans shall be submitted in writing to the Department for approval within sixty days of the written notification by the Department. Plans shall specify separate and increasingly stringent actions for reducing each type of air pollution emission for Stage I, Stage II, and Emergency in accordance with the minimum requirements set forth in Tables I, II, and III. The Department shall be supplied with sufficient information to determine the emission reduction that will be attained for each pollutant during each condition. The plans shall also designate an individual and at least two alternates responsible for the execution of the plans and any other actions or orders issued under this Regulation. During high air pollution episodes and upon notification as stated in Section IV, D., plans approved by the Department are formal orders to be executed at once to protect public health.

B. The Department shall develop and issue a contingency plan for the implementation of this Regulation. This plan will include the programs developed by companies as described under A. of this Section. The contingency plan will also list activities including specific companies, establishments and types of businesses which may continue with little or no restriction during episodes.

C. Upon written notice by the Department, any person owning or conducting any operation which results in the emission of air contaminants shall perform tests to determine the rate of operation and other conditions which will result in minimum air contaminant emission to the atmosphere. A copy of the test results shall be submitted to the Department and will be used as a guide in the evaluation of emission reduction plans for Stage II or Emergency Conditions.

D. The Commissioner of Health may appoint such committees he deems necessary to advise and assist the Department in developing the contingency plan for high air pollution episodes. Such committees may include, but not be limited to, a technical industry committee, a medical care committee, a community coordination committee, a transportation committee, and a solid waste committee. A representative of the Department shall serve as a member of each committee. Meetings of a committee shall be held at the call of the chairman of the committee or the Commissioner of Health, or his designated representative.

## Section VI - Actions and Restrictions

When the Health Commissioner or his designated representative declares any of the high air pollution conditions in Section II, the following actions and any other actions ordered by the Emergency Coordinator or his designated representative shall be taken by those responsible, including businesses and other persons having emission reduction plans, those without plans, the general public, and the City, State and Federal Governments.

A. High Sulfur Dioxide Levels

(1) During Stage I Conditions:

(a) Businesses and other establishments with emission reduction plans for sulfur dioxide shall invoke them for Stage I, and

(b) Manufacturers and other businesses without plans shall reduce sulfur dioxide emissions by curtailing sulfur dioxide producing operations including process steam and heat load demands, and the use of electrical power, and

(c) Businesses, other establishments and the general public shall reduce electrical power consumption by limiting the use of electric ovens, toasters, irons, dishwashers, air conditioners, lights, signs, and other electrical devices.

(2) During Stage II Conditions:

(a) All persons shall continue those actions for Stage I, high sulfur dioxide concentrations, and in addition,

(b) Businesses and other establishments with emission reduction plans for sulfur dioxide or curtailment of electrical power shall invoke them for Stage II, and

(c) Manufacturers and other businesses without plans will reduce sulfur dioxide emissions by curtailing sulfur dioxide producing operations including process steam and heat load demands, and the use of electrical power by assuming reasonable economic hardship, and,

(d) Businesses and other establishments without plans and the general public shall reduce the temperature in their buildings and homes to 70°F if oil or coal heating is used, or increase the temperature to 80°F if air conditioning is used, and

(e) Sensitive persons shall minimize exposure to the outside atmosphere.

(3) During Emergency Conditions:

(a) All persons shall continue those actions for Stage II, high sulfur dioxide concentrations, and in addition

(b) Businesses and other establishments with emission reduction plans for sulfur dioxide shall invoke them for the Emergency condition, and

(c) Businesses and other establishments including but not limited to those listed in Table IV shall immediately discontinue operation, and send personnel home until the Emergency Condition is over. Heat or air conditioning in these establishments shall be reduced to a minimum sufficient only to protect buildings and equipment. Exceptions are listed for exemption in the contingency plan, and

(d) The general public shall reduce the temperature in their homes 65°F if coal or oil heat is used, and

(e) Use of electric ovens, toasters, irons, dishwashers, air conditioners, lights, and other electrical devices shall be restricted to essential needs and

(f) All persons shall minimize their exposure to the outside atmosphere.

B. High particulate Levels

(1) During Stage I Conditions:

(a) Businesses and other establishments with emission reduction plans for particulate matter shall invoke them for Stage I, and

(b) Manufacturers and other businesses without plans shall reduce particulate emissions by curtailing particulate producing operations including process steam and heat load demands, and the use of electrical power, and

(c) Businesses and other establishments without plans will limit lancing and soot blowing of boilers and the operation of incinerators to between the hours of 12:00 Noon and 4:00 P.M.

(2) During Stage II Conditions:

(a) All persons shall continue those actions for Stage I, high particulate matter concentrations, and in addition

(b) Businesses and other establishments with emission reduction plans for particulate matter shall invoke them for Stage II, and,

(c) Manufacturers and other businesses without plans will reduce particulate emissions by curtailing particulate producing operations including process steam and heat load demands, and the use of electrical power by assuming reasonable economic hardships, and

(d) Businesses and the general public shall reduce the temperature in their buildings and homes to 70°F if they use oil or coal heat, or increase the temperature to 80°F if air conditioning is used, and

(e) Businesses and other establishments without plans shall limit lancing or soot blowing of boilers to between the hours of 12:00 Noon and 4:00 P.M., and

(f) Incinerators burning less than 10,000 lb./hr. of waste shall cease operations, and

(g) The use of electrical devices shall be limited, and

(h) Sensitive individuals will minimize exposure to the outside atmosphere.

(3) During Emergency Conditions:

(a) All persons shall continue those actions for Stage II, high particulate matter concentrations, and in addition

(b) Businesses and other establishments with emission reduction plans for particulate matter, shall invoke them for Emergency Condition, and

(c) The Department shall invoke the traffic control plan for the Emergency Condition, and

(d) Businesses and other establishments including but not limited to those listed in Table IV shall immediately discontinue operation, and send personnel home until the Emergency condition is over. Heat or air conditioning in these establishments shall be reduced to a minimum sufficient only to protect buildings and equipment. Exceptions are listed for exemption in the contingency plan, and

(e) The general public shall reduce the temperature in their homes to 65°F if coal or oil heat is used, and

(f) Use of electric ovens, toasters, irons, dishwashers, air conditioners, lights, and other electrical devices shall be restricted to essential needs only, and

(g) Incinerators shall cease operation, and

(h) All persons shall limit use of motor vehicles to emergency needs only. Exceptions are listed for exemption in the contingency plan, and

(i) All persons shall minimize exposure to the outside atmosphere.

C. High Sulfur Dioxide - Particulate Product Levels

(1) During Stage I Conditions:

All actions included in Section VI., A. 1, and B. 1.

(2) During Stage II Conditions:

All actions included in Section VI., A. 2, and B. 2.

(3) During Emergency Conditions:

All actions included in Section VI., A. 3, and B. 3.

D. High Carbon Monoxide Levels

(1) During Stage I Conditions:

(Reserved for Future Use)

(2) During Stage II Conditions:

(a) (Reserved for Future Use)

(b) Businesses and other establishments with emission reduction plans for carbon monoxide matter shall invoke them for Stage II, and

(c) The Department shall invoke the traffic control plan for Stage II, and

(d) All persons shall limit use of motor vehicles by increasing the use of public transportation and car pools and the elimination of unnecessary operation, and

(e) Information shall be given to the public as to which roads or areas of the City are to be particularly avoided, and

(f) Individuals predisposed toward cardiac conditions shall minimize exposure to the outside atmosphere and avoid exercise.

(3) During Emergency Conditions:

(a) All persons shall continue those actions for Stage II high carbon monoxide concentrations, and in addition

(b) Businesses and other establishments with emission reduction plans for carbon monoxide shall invoke them for the emergency condition, and

(c) Businesses and other establishments shall discontinue operation and send personnel home until the Emergency Condition is over. Exceptions are listed for exemption in the contingency plan, and

(d) The Department shall invoke the traffic control plan for the Emergency condition, and

(e) All persons shall limit use of motor vehicles to emergency needs only. Exceptions are listed for exemption in the contingency plan, and

(f) All persons will minimize exposure to the outside atmosphere and avoid exercise.

E. High Nitrogen Dioxide Levels

(1) During Stage I Conditions:

(a) Businesses and other establishments with emission reduction plans for nitrogen dioxide shall invoke them for Stage I, and

(b) Manufacturers and other businesses without plans will reduce nitrogen dioxide emissions by curtailing nitrogen dioxide producing operations including process steam and heat load demands and the use of electrical power, and

(c) Businesses and other establishments without plans and the general public will reduce electric power consumption by limiting the use of electric ovens, toasters, irons, dishwashers, air conditioners, lights, signs, and other electrical devices, and

(d) All persons will limit use of motor vehicles to essential needs only.

(2) During Stage II Conditions:

(a) All persons shall continue those actions for Stage I, high nitrogen oxide concentrations, and in additon

(b) The Department shall invoke the traffic control plan for Stage II, and

(c) Businesses and other establishments with emission reduction plans for nitrogen dioxide shall invoke them for Stage II, and

(d) Manufacturers and other businesses without plans will reduce nitrogen dioxide emissions by curtailing nitrogen dioxide producing operations including process steam and heat load demands, and the use of electrical power by assuming a reason-economic hardship, and

(e) Businesses and other establishments without plans and the general public shall reduce the temperature in their buildings and homes to 70°F, if heating or increase the temperature to 80°F, if air conditioning, and

(f) All persons shall limit use of motor vehicles by increasing the use of public transportation and car pools and the elimination of unnecessary operation. Information shall be given to the public as to which roads or areas of the City are to be particularly avoided, and

(g) Sensitive individuals shall minimize exposure to the outside atmosphere.

(3) During Emergency Conditions:

(a) All persons shall continue those actions for Stage II high nitrogen oxide concentrations, and in addition

(b) The Department shall invoke traffic control plan for the Emergency condition, and

(c) Businesses and other establishments with emission reduction plans for nitrogen dioxide shall invoke them for the Emergency condition.

(d) Businesses and other establishments including but not limited to those listed in Table IV shall immediately discontinue operation, and send personnel home until the Emergency Condition is over. Heat or air conditioning in these establishments shall be reduced to a minimum sufficient only to protect buildings and equipment. Exceptions are listed for exemption in the contingency plan.

(e) The general public shall reduce the temperature in their homes to 65°F if heating, and

(f) All persons shall limit use of motor vehicles to emergency needs only. Exceptions are listed for exemption in the contingency plan, and

(g) The use of electric ovens, toasters, irons, dishwashers, air conditioners, lights, signs, and other electrical devices shall be restricted to essential needs only, and

(h) All persons will minimize exposure to the outside atmosphere.

F. High Oxidant Levels

(1) During Stage I Conditions:

(Reserved for Future Use)

(2) During Stage II Conditions:

(a) (Reserved for Future Use)

(b) Businesses and other establishments with emission reduction plans for photochemically reactive organic materials shall invoke them for Stage II, and

(c) Section VI, E, 2 shall be invoked, and

(d) The Department shall invoke traffic control plan for Stage II, and

(e) Gasoline sales and the unnecessary filling of storage tanks with reactive organic materials shall be prohibited between 6:00 A.M. and 12:00 Noon.

(f) All persons shall limit use of motor vehicles by increasing the use of public transportation and car pools and the elimination of unnecessary operation. Information shall be given to the public as to which roads and areas of the City are to be particularly avoided.

(g) Sensitive individuals shall minimize exposure to the outside atmosphere.

(3) During Emergency Conditions:

(a) All persons shall continue those actions for Stage II high oxidant concentrations, and in addition

(b) Businesses and other establishments with emission reduction plans for photochemically reactive organic materials shall invoke them for the Emergency Condition, and

(c) Businesses and other establishments shall discontinue operation and send personnel home until the Emergency Condition is over. Exceptions are listed for exemption on the contingency plan, and

(d) Section VI, E, 3., shall be invoked, and

(e) The Department shall invoke the traffic control plan for the Emergency Condition.

(f) All persons shall limit use of motor vehicles to emergency needs only. Exceptions are listed for exemption in the contingency plan.

(g) All persons will minimize exposure to the outside atmosphere.

## Section VII - Severability

The provisions of this Regulation are severable and if any provision, sentence, clause, section or part thereof shall be held illegal, invalid, unconstitutional or inapplicable to any person or circumstance, such illegality, invalidity, unconstitutionality, or inapplicability shall not affect or impair any of the remaining provisions, sentences, clauses, section or part of the ordinance of their application to him or to other persons and circumstances. It is hereby declared to be the legislative intent that these Regulations would have been adopted if such illegal, invalid or unconstitutional provision, sentence, clause or part had not been included therein, and if the person or circumstances to which the ordinance or any part thereof is inapplicable had not specifically been exempted therefrom.

## Section VIII - Effective Date

This Regulation shall become effective upon adoption.

### TABLE 1

### Minimum Abatement Strategies for Emission Reduction Plans

### Stage I Condition

| Source of Air Pollution | Control Action |
|---|---|
| 1. Oil or Coal-fired electric generating facilities. | a. Maximum utilization of mid-day (12 Noon to 4 P.M.) atmospheric turbulence for boiler lancing and soot blowing.<br>b. Substantial reduction of fuel burning by diverting electric power generation to facilities outside of the area. |

| Source of Air Pollution | Control Action |
|---|---|
| 2. Oil or Coal-fired process steam generating facilities. | a. Maximum utilization of mid-day (12 Noon to 4 P.M.) atmospheric turbulence for boiler lancing and soot blowing. |
| | b. Substantial reduction of steam load demands consistent with continuing plant operations. |
| | c. Maximum reduction of the use of electrical devices. |
| 3. Manufacturing industries of the following classifications:<br>Primary Metals<br>Petroleum Refining<br>Chemical<br>Mineral Processing<br>Paper and Allied Products<br>Grain | a. Substantial reduction of air pollutant emissions from manufacturing operations by curtailing, postponing, or deferring productions and all operations. |
| | b. Maximum reduction by deferring the operation of trade waste disposal operations which emit solid particles, gas vapors or malodorous substances. |
| | c. Maximum reduction of heat load demands for processing. |
| | d. Maximum utilization of mid-day (12 Noon to 4 P.M.) atmospheric turbulence for boiler lancing or soot blowing. |
| | e. Maximum reduction of the use of electrical devices. |

## TABLE II

## Minimum Abatement Strategies for Emission Reduction Plans

## Stage II Condition

| Source of Air Pollution | Control Action |
|---|---|
| 1. Oil or Coal-fired electric power generating facilities. | a. Maximum utilization of mid-day (12 Noon to 4 P.M.) atmospheric turbulence for boiler lancing and soot blowing. |
| | b. Maximum reduction of fuel burning by diverting electric power generation to facilities outside of the area. |
| 2. Oil or Coal-fired process steam generating facilities. | a. Maximum utilization of mid-day (12 Noon to 4 P.M.) atmospheric turbulence for boiler lancing and soot blowing. |

| Source of Air Pollution | Control Action |
|---|---|
| | b. Substantial reduction of steam load demands consistent with continuing plant operations. |
| | c. Maximum reduction of the use of electrical devices. |
| 3. Manufacturing industries of the following classifications:<br>Petroleum Refining<br>Chemical<br>Primary Metals<br>Glass<br>Paper and Allied Products | a. Maximum reduction of air pollutant emissions from manufacturing operations by, if necessary, assuming reasonable economic hardships by postponing production and allied operation. |
| | b. Maximum reduction by deferring the operation of trade waste disposal operations which emit solid particles, gases, vapors, or malodorous substances. |
| | c. Maximum reduction of heat load demands for processing. |
| | d. Maximum utilization of mid-day (12 Noon to 4 P.M.) atmospheric turbulence for boiler lancing or soot blowing. |
| | e. Maximum reduction of the use of electrical devices by assuming reasonable economic hardship. |

## TABLE III

### Minimum Abatement Strategies for Emission Reduction Plans

### Emergency Condition

| Source of Air Pollution | Control Action |
|---|---|
| 1. Oil or Coal-fired electric power generating facilities. | a. Maximum utilization of mid-day (12 Noon to 4 P.M.) atmospheric turbulence for boiler lancing or soot blowing. |
| | b. Maximum reduction of fuel burning by diverting electric power generation to facilities outside of Emergency area. |

| Source of Air Pollution | Control Action |
|---|---|
| 2. Oil or Coal-fired process steam generating facilities. | a. Maximum reduction of fuel burning by reducing heat and steam demands to absolute necessities consistent with preventing equipment damage. |
| | b. Maximum utilization of mid-day (12 Noon to 4 P.M.) atmospheric turbulence for boiler lancing and soot blowing. |
| | c. Maximum reduction of the use of electrical devices without causing physical injury to persons. |
| 3. Manufacturing industries of the following classifications:<br>Primary Metals<br>Petroleum Refining<br>Chemical<br>Mineral Processing<br>Grain<br>Paper and Allied Products | a. Elimination of air pollutant emissions from manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible without causing physical injury to persons |
| | b. Elimination of air pollutant emissions from trade waste disposal processes which emit solid particles, gases, vapors or malodorous substances. |
| | c. Maximum reduction of heat load demands for processing. |
| | d. Maximum utilization of mid-day (12 Noon to 4 P.M.) atmospheric turbulence for boiler lancing or soot blowing. |
| | e. Maximum reduction of the use of electrical devices. |

## TABLE IV

## Emergency Business and Establishment List

1. All construction work except that which must proceed to avoid imminent physical harm to persons.

2. All manufacturing establishments.

3. All wholesale trade establishments, i.e., places of business primarily engaged in selling merchandise to retailers, or industrial, commercial, institutional or professional users, or to other wholesalers, or acting as agents in buying merchandise for or selling merchandise to such persons or companies, except those engaged in the distribution of drugs, surgical supplies and food.

4. All offices of local, county and State government including authorities, joint meetings, and other public bodies excepting such agencies which are vital for public safety and welfare and the enforcement of the provisions of this Regulation.

5. All retail trade establishments except pharmacies, surgical supply distributors, and stores primarily engaged in the sale of food.

6. Banks, credit agencies, securities and commodities brokers, dealers, exchanges and services; offices of insurance carriers, agents and brokers, real estate offices.

7. Wholesale and retail laundries, laundry services and cleaning and dyeing establishments; photographic studies, beauty shops, barber shops.

8. Advertising offices; consumer credit reporting, adjustment and collection agencies; duplicating, addressing, blueprinting; photocopying, mailing, mailing list and stenographic services; equipment rental services, commercial testing laboratories.

9. Automobile repair and service garages.

10. Establishments rendering amusement and recreational services including motion picture theaters.

11. Elementary and secondary schools, colleges, universities, professional schools, junior colleges, vocational schools, and public and private libraries.

## REGULATION V

## REGULATION FOR AIR MANAGEMENT
## CONTROL OF EMISSIONS OF ORGANIC SUBSTANCES FROM STATIONARY SOURCES

### Section I - Definitions

Architectural Coating

Any coating used for residential, commercial or industrial buildings and their appurtenances.

Kerosine

Any petroleum hydrocarbon which when distilled by ASTM standard test method D 86-67 will give a temperature of 401°F or less at 10 percent point recovered.

Oil-Effluent Water Separator

Any tank, box, sump, or other container or group of such containers in which any organic material floating on, or entrained, or contained in water entering such containers is physically separated and removed from such water prior to the exit from the container of such water.

## Organic Material

Chemical compounds of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbonates, metallic carbides and ammonium carbonates.

## Organic Solvent

An organic material which is liquid at standard conditions and which is used as a dissolver, viscosity reducer or cleaning agent.

## Photo-Reactive Organic Material

Any organic material which will react with oxygen, excited oxygen, ozone and/or other free radicals generated by the action of sunlight on components in the atmosphere giving rise to secondary contaminants and reaction intermediates in the atmosphere which can cause detrimental effects.

## Photochemically Reactive Organic Materials

A photochemically reactive organic material is:

(1) Any combination of hydrocarbons, alcohols, aldehydes, esters or ketones having an olefinic or cyclo-olefinic type of unsaturation comprising 5 percent or more by volume of the organic material, or

(2) Any combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene comprising 8 percent or more by volume of the organic material, or

(3) Any combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene, or toluene comprising 20 percent or more by volume of the organic material, or

(4) Any combination of any of the above mentioned chemical compounds comprising 20 percent or more by volume of the organic material.

## Reid Vapor Pressure

Reid Vapor Pressure (RVP) is the absolute pressure in pounds per square inch determined at 100°F and v/l = 4 (ratio of vapor volume to liquid volume, as defined in ASTM designation D 323-58) by using apparatus and procedures as standardized under the auspices of the American Society for Testing Materials.

## Submerged Fill Pipe

Any fill pipe, the discharge opening of which is submerged when the liquid level is 6 inches above the bottom of the tank.

Section II - Storage Tank

A. No person shall place or store in any stationary storage tank or container of 40,000 gallon capacity or greater, any organic material having a vapor pressure of 1.5 pounds per square inch absolute or greater at actual storage conditions unless one of the following organic material vapor control devices properly installed and well maintained is in operation:

   (1) A floating roof resting on the surface of the liquid contents equipped with a closure seal, or seals, to close the space between the roof edge and tank wall, and in addition, all tank gauging and sampling devices shall be gas-tight except when in use, or

   (2) A pressure tank system maintaining a pressure at all times so as to prevent organic material loss to the atmosphere, or

   (3) A vapor recovery system capable of collecting the organic materials emitted from the tank and disposing of these emissions so as to prevent their emission to the atmosphere, and in addition, all tank gauging and sampling devices shall be gas-tight except when in use, or

   (4) Other equipment equal or greater in efficiency to those devices listed above, and approved by the Department.

B. No person shall place, or store in any stationary storage tank or container of 40,000 gallon capacity or greater, any organic material having a vapor pressure of 11.0 pounds per square inch absolute or greater at actual storage conditions unless one of the following organic material vapor control devices properly installed and well maintained, is in operation:

   (1) A pressure tank system maintaining a pressure at all times so as to prevent organic material loss to the atmosphere, or

   (2) A vapor recovery system capable of collecting the organic materials emitted from the tank and disposing of these emissions so as to prevent their emission to the atmosphere, and in addition, all tank gauging and sampling devices shall be gas-tight except when in use, or

   (3) Other equipment equal or greater in efficiency to those devices listed above, and approved by the Department.

Section III. Oil-Effluent Water Separator

No person shall use any compartment of any single or multiple compartment oil-effluent water separator which may receive 200 gallons a day or more of organic materials or mixture of organic materials consisting of kerosine or more volatile organic materials unless one of the following organic material vapor control devices properly installed and well maintained, is in operation:

(1) A solid cover sealed and totally enclosing the liquid contents, and in addition, all gauging and sampling devices shall be gas-tight except when in use, or

(2) A floating roof resting on the surface of the liquid contents equipped with a closure seal or seals to close the space between the roof edge and wall, and in addition, all tank gauging and sampling devices be gas-tight except when in use, or

(3) A vapor recovery system capable of collecting the organic materials emitted from the separator and disposing of these emissions so as to prevent their emission to the atmosphere, and in addition, all tank gauging and sampling devices shall be gas-tight except when in use, or

(4) Other equipment equal or greater in efficiency to those devices listed above, and approved by the Department.

### Section IV. Pumps and Compressors

All pumps handling organic materials having a vapor pressure of 1.5 pounds per square inch absolute or greater at ambient conditions and compressors in organic material service shall have mechanical seals, or other components of equal or greater efficiency approved by the Department.

### Section V. Organic Material Loading

A. No person shall load any organic material having a Reid vapor pressure of 4.0 pounds or greater into any tank truck, tank car, or trailer from any loading facility from which 20,000 gallons or more of such organic material are loaded in any one day from this facility unless this facility is equipped with a vapor recovery system properly installed, well maintained, in operation, and approved by the Department. Such a vapor recovery system shall be capable of collecting the organic materials emitted from the filling operation and disposing of these emissions so as to prevent their release to the atmosphere. All loading connections in the system shall be equipped with fittings which shall be vapor tight and will automatically and immediately close upon disconnection so as to prevent organic material emissions from these fittings.

This section shall not apply to the loading of fuel tanks of motor vehicles as defined by the Pennsylvania Department of Transportation.

B. No person shall load or permit the loading of any organic material having a Reid vapor pressure of 4.0 pounds or greater from any tank truck, tank car or trailer into a stationary tank with a capacity of 250 gallons or more except through a permanent submerged fill pipe unless the tank is equipped with an approved vapor control system as described in Section II.

This section shall not apply to the loading of such organic materials into any tank having a capacity of less than 2,000 gallons which was installed underground prior to the date of adoption of this Regulation.

## Section VI. Organic Solvents

A. No person shall discharge any organic material into the atmosphere or into any building or other enclosure in any one day from any machine, equipment or device in which any organic solvent or solvent containing material is in direct contact with a flame or is baked, heat-cured or heat polymerized in the presence of oxygen unless this discharge does not exceed 15 pounds per day or is reduced by at least 85 percent overall.

B. No person shall discharge any organic material into the atmosphere or into any building or other enclosure in any one day from any machine, equipment or device not specifically defined in Section VI A. used for employing, applying, evaporating or drying any photochemically reactive organic solvent as defined in Section I or material containing such solvent unless this discharge does not exceed 40 pounds per day or is reduced by at least 85 percent overall.

C. This section shall not apply to the employment, application, evaporation or drying of saturated halogenated hydrocarbons or perchloroethylene.

## Section VII. Processing of Photochemically Reactive Organic Materials

No person shall discharge any organic material into the atmosphere or into any building or other enclosure in any one day from any machine, equipment or device not specifically defined in Section VI A. used in the processing and/or manufacturing of photochemically reactive organic material as defined in Section I or substance containing such photochemically reactive organic material unless this discharge does not exceed 40 pounds per day or is reduced by at least 85 percent overall.

## Section VIII. Architectural Coatings

No person shall sell or offer for sale, employ, apply or evaporate in the City of Philadelphia any architectural coating purchased in a quantity of one gallon or more containing a photochemically reactive solvent as defined in Section I.

No person shall thin or dilute any architectural coating for use in the City of Philadelphia, with a solvent containing a photochemically reactive solvent as defined in Section I in any quantity.

All containers of architectural coatings sold, employed, applied or evaporated in the City of Philadelphia purchased in a quantity of one gallon or more containing any approved solvent shall be labeled to indicate compliance with this Regulation.

### Section IX. Disposal of Solvents

No person shall during any one day dispose of a total of more than 5 gallons of any photochemically reactive solvent as defined in Section I by any means which will permit evaporation of such solvent into the atmosphere.

### Section X. Odors

Where organic materials referred to in this regulation are odorous, the emissions of such materials shall be in compliance with this regulation and, in addition, shall be controlled as required to prevent any odor nuisance they might create.

### Section XI. Radioactive and Toxic Organic Materials

Where organic materials referred to in this regulation are radioactive or toxic in nature, additional requirements may be imposed by the Department to reduce continuous and periodic emissions to levels necessary to prevent a health hazard, and to prevent the accidental release of such materials into the atmosphere.

### Section XII. Circumvention

No person shall build, erect, install or use any article, machine, equipment or other contrivance, the sole purpose of which is to dilute or conceal an emission without resulting in a reduction in the total release of air contaminants to the atmosphere.

### Section XIII. Severability

The provisions of this regulation are severable and if any provision, sentence, clause, section or part thereof shall be held illegal, invalid, unconstitutional or inapplicable to any person or circumstance: such illegality, invalidity, unconstitutionality, or inapplicability shall not affect or impair any of the remaining provisions, sentences, clauses, section or part of the ordinance or their application to him or to other persons and circumstances. It is hereby declared to be the legislative intent that these regulations would have been adopted if such illegal, invalid, or unconstitutional provision, sentence, clause or part had not been included therein, and if the person or circumstances to which the ordinance or any part thereof is applicable had not specifically been exempted therefrom.

### Section XIV. Effective Date

Except as otherwise provided, these regulations shall become effective upon adoption. The owner of any source of emission, in existence or under construction at the time of adoption, shall notify the Department within six months from the effective date, by an approved compliance schedule filed, of his intent to discontinue any operations or activities which cause any emissions that result in an emission in violation of these regulations or to control such emission to the extent required by these regulations, or that the emission is in compliance. Within a period of eighteen months from the effective date, compliance shall be obtained at all sources of emission within the scope of this regulation.

## REGULATION VIII

## CONTROL OF EMISSIONS OF CARBON MONOXIDE FROM STATIONARY SOURCES

### Section I - Definitions

Stationary Source

Any building, structure, facility, or installation which is fixed in a certain place or position which emits or may emit any air contaminants.

Person

Any individual, natural person, syndicate, association, partnership, firm, corporation, institution, agency, authority, department, bureau, or instrumentality of federal, state, or local government or other entity recognized by law as a subject of rights and duties.

### Section II - General

No person shall emit carbon monoxide gases generated during the operation of the following sources unless the gases are incinerated at a temperature of not less than 1400 degrees Fahrenheit for a period of not less than 0.5 seconds or are controlled by means of equal or greater efficiency:

(1) Gray iron cupola furnace, or

(2) Blast furnace, or

(3) Basic oxygen steel furnace, or

(4) Catalyst regeneration of a petroleum cracking system, or

(5) Petroleum fluid coker, or

(6) Other stationary sources emitting Carbon Monoxide (CO) in a concentration greater than one (1) percent by volume in the exhaust gases.

### Section III - Equipment Monitoring

An instrument or instruments for continuously monitoring and/or recording emissions of carbon monoxide or process parameters well maintained, in operation, and approved by the Department shall be installed at all sources governed by this Regulation when required by the Department.

### Section IV - Circumvention

No person shall build, erect, install or use any article, machine, equipment or other contrivance, the sole purpose of which is to dilute or conceal an emission without resulting in a reduction in the total release of air contaminants to the atmosphere.

### Section V - Severability

The provisions of these regulations are severable and if any provision, sentence, clause, section or part thereof shall be held illegal, invalid, unconstitutional or inapplicable to any person or circumstances, such illegality, invalidity, unconstitutionality or inapplicability shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of the ordinance or their application to him or to other persons and circumstances. It is hereby declared to be the legislative intent that these regulations would have been adopted if such illegal, invalid, or unconstitutional provision, sentence, clause or part had not been included therein, and if the person or circumstances to which the ordinance or any part thereof is inapplicable had not specifically be exempted therefrom.

### Section VI - Effective Date

Except as otherwise provided, this Regulation shall become effective upon adoption. The owner of any source of emission, in existence or under construction at the time of adoption, shall notify the Department within three months from the effective date, by an approved compliance schedule filed, of his intent to discontinue any operations or activities which cause any emissions that result in an emission in violation of these regulations or to control such emission to the extent required by these regulations, or that the emission is in compliance. Within a period of eighteen months from the effective date, compliance shall be obtained at all sources of emission within the scope of this regulation.

## REGULATION IX

## CONTROL OF VISIBLE EMISSIONS FROM MOBILE SOURCES

### Section I - Definitions

#### Air Contaminants

Any smoke, soot, flyash, dust, cinders, dirt, noxious or obnoxious acids, fumes, oxides, gases, mists, aerosols, vapors, odors, toxic or radioactive substances, waste, particulate, solid, liquid or gaseous matter, or any other materials in the outdoor atmosphere.

#### Diesel Powered Motor Vehicle

A self propelled vehicle designed for transporting persons or property which is propelled by a compression ignition type of internal combustion engine.

#### Gasoline Powered Motor Vehicle

A self propelled vehicle designed primarily for transporting persons or property which is propelled by a thermal ignition type of internal combustion engine, using gasoline as the fuel.

Motor Vehicle

All vehicles propelled other than by muscular power except such vehicles as run only on rails or tracks.

Opacity

The property of a substance which renders it partially or wholly obstructive to the transmission of visible light expressed as a percentage to which the light is obstructed.

Person

Any individual, natural person, syndicate, association, partnership, firm, corporation, institution, agency, authority, department, bureau, or instrumentality of Federal, State, or local government or other entity recognized by law as a subject of rights and duties.

## Section II - Standard of Emissions

A. No person shall permit, cause, suffer, or allow the discharge into the atmosphere of a visible emission of air contaminants except uncombined water from a gasoline powered motor vehicle at any time, except for three (3) consecutive seconds after starting the engine.

B. No person shall permit, cause, suffer or allow the discharge into the atmosphere of a visible emission of air contaminants except uncombined water from a diesel powered motor vehicle at any time, except for three (3) consecutive seconds after starting the engine, except as otherwise provided in Section II, Part C of this Regulation.

C. No person shall permit, cause, suffer, or allow the discharge into the atmosphere of a visible emission of air contaminants except uncombined water from a diesel powered motor vehicle except for a period of less than five (5) consecutive seconds while in motion.

D. No person shall permit, cause, suffer or allow the discharge into the atmosphere of a visible emission of air contaminants except uncombined water in excess of 20 percent opacity from a motor vehicle at any time.

E. Persons certified by the Department may make observations to determine compliance with Section II, Part D of this Regulation without direct reference to standards.

## Section III - Circumvention

No person shall build, erect, install or use any article, machine, equipment or other contrivance, the sole purpose of which is to dilute or conceal an emission without resulting in a reduction in the total release of air contaminants to the atmosphere.

### Section IV - Severability

The provisions of these regulations are severable and if any provision, sentence, clause, section or part thereof shall be held illegal, invalid, unconstitutional or inapplicable to any person or circumstances, such illegality, invalidity, unconstitutionality or inapplicability shall not affect or impair any of the remaining provision, sentences, clauses, sections or parts of the ordinance or their application to him or to other persons and circumstances. It is hereby declared to be the legislative intent that these regulations would have been adopted if such illegal, invalid or unconstitutional provision, sentence, clause or part had not been included therein, and if the person or circumstances to which the ordinance or any part thereof is inapplicable had not specifically been exempted therefrom.

### Section V - Effective Date

Except as otherwise provided, this regulation shall become effective upon adoption.

## REGULATION X

## COMPLEX SOURCE REVIEW

### Section I - Definitions

Complex Source

A facility, building, structure or installation, or combination thereof, that has or leads to secondary or adjunctive activity which emits or may emit a pollutant for which there is a national ambient air quality standard. These sources include, but are not limited to:

(1) Shopping Centers;

(2) Sports complexes;

(3) Drive-in theaters;

(4) Parking lots and garages;

(5) Residential, commercial, industrial, and institutional developments;

(6) Amusement parks and recreational areas;

(7) Highway and transportation facilities;

(8) Sewer, water, power, and gaslines, and

(9) Other such facilities which will result in increased emissions from motor vehicles or stationary sources.

National Ambient Air Quality Standards

Those primary and secondary ambient air quality standards which are promulgated by the Administrator of the United States Environmental Protection Agency.

Person

Any individual, natural person, syndicate, association, partnership, firm, corporation, institution, agency, authority, department, bureau, or instrumentality of federal, state, or local government or other entity recognized by law as a subject of rights and duties.

Philadelphia CBD

The area within the City of Philadelphia bounded by but not including, Vine Street, South Street, the Schuylkill River, and the Delaware River.

## Section II - General Provisions

A. No person shall construct, reconstruct, alter or install any complex source, except as provided in Section II B. before obtaining written approval from the Department for such construction, reconstruction, alteration or installation.

B. The requirements of Section II A. shall not apply to the following complex sources:

(1) Commercial or industrial facilities with gross leasable area or floor space less than 500,000 square feet;

(2) New or modified parking facilities within the Philadelphia CBD with total capacity of less than 250 motor vehicles and new or modified parking facilities outside of the CBD with total capacity of less than 500 motor vehicles;

(3) Facilities of less than one hundred (100) dwelling units or groups of facilities of less than one hundred dwelling units;

(4) Such other complex sources as the Department determines to have negligible air quality impact.

C. Nothing contained in this Section shall be taken to excuse or relieve any person from complying with any applicable provision of the Air Management Code or any regulation adopted thereunder.

## Section III - Air Quality Impact Review

A. Request for Approval

Request for approval to construct, reconstruct, alter or install any complex source shall be made to the Department by the person responsible for such source and shall include submission of an air quality impact statement sufficiently detailed to show all actual and potential impacts on the existing air quality resulting directly, or indirectly, from the facility at the site, and in the area, neighborhood and region.

B. Review Procedures

(1) The Department shall establish procedures and guidelines for use in the preparation, submission and review of air quality impact statements and shall prescribe the information to be supplied in order to determine the effect of the complex source on air quality.

(2) Information to be given in the statement shall include, but not be limited to, the following:

(a) Location and general description of the proposed facility or project.

(b) Information on the nature, design, construction and operation of the facility.

(c) Information on the transportation related aspects of the project including mass transit, traffic patterns and parking facilities.

(d) The nature and amounts of air contaminants to be emitted directly from the facility or emitted by associated mobile sources.

Any additional information, evidence or documentation that the Department may require shall be furnished upon request.

(3) The Department shall make available for public inspection information submitted by the person responsible for the proposed project or facility, as well as the Department's analysis of the effect on air quality and proposed approval or disapproval, and provide a period of at least thirty (30) days after prominent advertisement for the submittal of public comment.

C. Conditions of Approval

(1) Approval to construct, reconstruct, alter or install any complex source shall be granted only upon demonstration to the satisfaction of the Department that such source will not violate any provision of the Air Management Code or Regulations of the Air Pollution Control Board or prevent or interfere with the attainment or maintenance of any national ambient air quality standard in the neighborhood, area or region.

(2) Such approval shall not exempt any person from prosecution for violation of the Air Management Code, Regulations of the Air

Pollution Control Board or any applicable laws of the Commonwealth of Pennsylvania or the United States Government.

### Section IV - Severability

The provisions of these Regulations are severable and if any provision, sentence, clause, section or part thereof shall be held illegal, invalid, unconstitutional or inapplicable to any person or circumstances, such illegality, invalidity, unconstitutionality or inapplicability shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of the ordinance or their application to him or to other persons and circumstances. It is hereby declared to be the legislative intent that these regulations would have been adopted if such illegal, invalid or unconstitutional provision, sentence, clause or part had not been included therein, and if the person or circumstances to which the ordinance or any part thereof is inapplicable had not specifically been exempted therefrom.

### Section V - Effective Date

Except as otherwise provided, this Regulation shall become effective upon adoption.

## REGULATION XI

## CONTROL OF EMISSIONS FROM INCINERATORS

### Section I - Definitions

#### Batch Incineration

A batch incineration is one in which refuse is charged, burned, and residue removed in sequence prior to re-charging of any additional refuse to the incinerator.

#### Continuous Incineration

A continuous incineration operation is one in which the charging of refuse and burning shall occur simultaneously and continuously, and removal of residue may occur simultaneously and continuously.

#### Department

The Department of Public Health of the City of Philadelphia or any duly authorized representative thereof.

#### Flyash

Particulate matter capable of being gasborne or airborne and consisting essentially of fused ash and/or burned or unburned material.

### Garbage

Animal and vegetable material or direct derivatives of animal or vegetable material waste matter.

### Incinerator

All devices intended or used for the destruction of rubbish, garbage, debris, scrap, human and animal remains, other refuse, or other combustible materials by means of burning of extraneous materials.

### Odor

Smells or aromas which are unpleasant to persons, or which tend to lessen human food and water intake, interfere with sleep, upset appetite, produce irritation of the upper respiratory tract, or create symptoms of nausea, or which by their inherent chemical or physical nature, or method or processing, are or may be detrimental or dangerous to health. Odors and smell are used herein interchangeably.

### Multiple Chambers

Two or more areas or sections in an incinerator of which one is for the primary combustion of refuse and another for secondary combustion of materials from the primary combustion chamber.

### Opacity

The property of a substance which renders it partially or wholly obstructive to the transmission of visible light expressed as a percentage to which the light is obstructed.

### Particulate Matter

Any material, except uncombined water, that exists in a finely divided form as a liquid or solid at standard conditions.

### Person

Any individual, natural person, syndicate, association, partnership, firm, corporation, institution, agency, authority, department, bureau, or instrumentality of federal, state or local government or other entity recognized by law as a subject of rights and duties.

### Standard Conditions

A gas temperature of 60 degrees Fahrenheit and a gas pressure of 14.7 pounds per square inch absolute.

### Standard Cubic Foot

A cubic foot of gas at standard conditions.

### Type 0 Waste

A mixture of highly combustible waste such as paper, cartons, or scrap wood containing approximately ten (10) percent or less moisture, and five (5) percent or less incombustible solids. The heating value of Type 0 Waste is approximately 8500 BTU per pound of waste as fired.

### Type 1 Waste

A mixture of combustible waste such as paper, cartons, or scrap wood containing approximately ten (10) to twenty five (25) percent moisture, and ten (10) percent or less incombustible solids. The heating value of Type 1 Waste is approximately 6500 BTU per pound of waste as fired.

### Type 2 Waste

A mixture of approximately equal amounts, by weight, of rubbish and garbage containing approximately fifty (50) percent or less moisture and approximately seven (7) percent or less incombustible solids. The heating value of Type 2 Waste is approximately 4300 BTU per pound waste as fired.

### Type 3 Waste

Garbage wastes containing approximately seventy (70) percent or less moisture and approximately five (5) percent or less incombustible solids. The heating value of Type 3 Waste is approximately 2500 BTU per pound waste as fired.

### Type 4 Waste

Human and animal remains consisting of carcasses, organs, other body parts and solid organic wastes containing approximately eighty-five (85) percent or less moisture and five (5) percent or less of incombustible solids. The heating value of Type 4 Waste is approximately 1000 BTU per pound waste as fired.

### Type 5 Waste

Liquid or semi-liquid by-product combustible waste such as tar, paint, solvents and other similar materials from industrial operations.

### Type 6 Waste

Solid by-product combustible waste such as rubber, plastics, wood, and other materials from industrial operations. The heating value of Type 6 Waste is greater than 9500 BTU per pound of waste as fired.

## Section II - General Provisions

A. No person shall permit, cause, suffer or allow the installation, or operation of any incinerator on or after the date of adoption of this Regulation which has a burning rate of less than 10,000 pounds per hour, and is intended to, or does incinerate Types 0, 1 or 2 wastes, except as a replacement of similar capacity to an existing, operating incinerator at the same location.

B. All incinerators shall be equipped with multiple chambers, an auxiliary heat source, and suitable controls, as required by the Department.

C. All incinerators installed prior to the date of adoption of this Regulation, having a burning rate exceeding 10,000 pounds per hour, shall be in compliance with this Regulation by May 19, 1974.

## Section III - Emission Limitations

### A. Particulate Matter

(1) No person shall permit, cause, suffer, or allow the discharge into the atmosphere of particulate matter from any incinerator installed after the date of adoption of this Regulation in excess of 0.08 grains per standard cubic foot of flue gas on a dry basis adjusted to 12% carbon dioxide ($CO_2$) as measured by stack testing methods approved by the Department.

(2) No person shall permit, cause, suffer, or allow the discharge into the atmosphere of particulate matter from any incinerator installed prior to the date or adoption of this Regulation in excess of 0.10 grains per standard cubic foot of flue gas on a dry basis adjusted to 12% carbon dioxide ($CO_2$) as measured by stack testing methods approved by the Department.

### B. Visible Emissions

(1) No person shall permit, cause, suffer or allow the discharge into the atmosphere from any incinerator any visible emission except uncombined water for a period of more than thirty (30) consecutive seconds in any one hour or an aggregate of more than three (3) minutes in any calendar day which is equal to or greater than twenty (20) percent opacity, or for any period which is equal to or greater than sixty (60) percent opacity.

(2) No person shall permit, cause, suffer or allow the discharge from any incinerator of any visible flyash into the atmosphere.

(3) Trained employees certified by the Department may make observations to determine compliance with the above provision without direct reference to standards.

## Section IV - Operation

No person shall permit, cause, suffer or allow the operation of an incinerator unless:

A. It has been properly installed and well maintained, and

B. All structural components and control equipment are properly installed and well maintained, and

C. All control equipment is in full operation, and

D. It is incinerating only those types of waste and not more than the maximum quantity of waste for which it is designed, and

E. It is being operated by a person instructed in the proper operation of the incinerator, and

F. A current operating license has been obtained.

Section V - Permits and Licenses

A. Installation Permit

An Air Pollution Control Installation Permit shall be obtained prior to the installation, conversion, or alteration of any incinerator. Application for this Permit shall be made on forms provided by the Department. Detailed plans and specifications shall be included with the application form and shall include but not be limited to the following information:

(1) The estimated daily amount and type of refuse to be incinerated, the basis for this estimate, and the design capacity of the incinerator.

(2) Engineering drawings of the incinerator, the stack, and the charging chute, and air pollution control equipment, if any. The locations of overfire and underfire air inlets shall be shown in the drawings.

(3) The location and height of the building housing the incinerator and of immediately surrounding buildings.

(4) The location and details of the combustion air inlets to the incinerator room or area, the burners and other incinerator equipment.

(5) The location of and details of all air pollution control equipment.

(6) The list of operating and maintenance procedures recommended by the manufacturer of the incinerator, including a statement indicating batch or continuous incinerator operation.

B. License to Operate

(1) The application for a license to operate an incinerator shall be filed at least two weeks in advance of the date of initial operation. Prior to the operation of the installation, the Department

shall approve or disapprove the application, or notify the applicant that the installation is incomplete with approval withheld pending completion or that a period of demonstration or test operation is required before approval may be granted.

(2) Prior to issuance of this license to operate, the Department shall require from the owner of the incinerator a written statement that the operator of the unit has been properly instructed in the operation and maintenance of the incinerator.

## Section VI - Circumvention

No person shall build, erect, install or use any article, machine, equipment or other contrivance, the sole purpose of which is to dilute or conceal an emission without resulting in a reduction in the total release of air contaminants to the atmosphere.

## Section VII - Severability

The provisions of these regulations are severable and if any provision, sentence, clause, section or part thereof shall be held illegal, invalid, unconstitutional or inapplicable to any person or circumstances, such illegality, invalidity, unconstitutionality or inapplicability shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of the ordinance or their application to him or to other persons and circumstances. It is hereby declared to be the legislative intent that these regulations would have been adopted if such illegal, invalid or unconstitutional provision, sentence, clause or part had not been included therein, and if the person or circumstances to which the ordinance or any part thereof is inapplicable had not specifically been exempted therefrom.

## Section VIII - Effective Date

Except as otherwise provided, this Regulation shall become effective upon adoption.

## TITLE III

Amending Title 3 of The Philadelphia Code relating to Air Management by revising certain references to the control, regulation and elimination of air pollution and the providing of penalties for violations.
The Council of the City of Philadelphia hereby ordains:

Section 1. Chapter 3 of the Title 3 of The Philadelphia Code, relating to the Air Management Code, is amended as follows:

(15.0) §3-103 Enforcement

* * *

(2) Abatement

Continuing violations of this Title, any regulation adopted hereunder, or any order of the Department made herunder are hereby declared to be a public nuisance per se. Where the Department determines that a nuisance per se exists, the Department, in addition to or in lieu of invoking any other sanction or remedial procedure provided, may either

* * *

(b) Apply, through the Law Department, to any appropriate Court for relief by injunction or restraining order against any person responsible for the violation.

(2.0) §3-301 Powers and Duties of the Department of Public Health

(3) The Department shall have the power to effect compliance with this Title, any regulations hereunder, or the provisions of any license or permit required under this Title, by,

(a) Order pursuant to §3-305 commanding all necessary actions or forbearances, and specifying a maximum period of time for the installation of any equipment or any other measures necessary to achieve compliance, or

(b) Initiation, through the Law Department, of appropriate legal proceedings in any appropriate Court for the imposition of a penalty under §3-103 of this Title, or

(c) Initiation, through the Law Department, of any appropriate legal proceedings in any Court of Law or Equity in order to prevent, restrain or abate emission of air contaminants in excess of the allowable limits set by this Title or any of the regulations adopted hereunder, or

(d) Initiation, through the Law Department, of any legal action necessary in any Court of Competent Jurisdiction in order to prevent, restrain or abate any violation of this Title, the regulation adopted hereunder or violations of the provisions of any license or permit issued under this Title or the violation of the provisions of any order made under §3-305.

The imposition of any penalty under §3-103 shall not prevent the Department from instituting any appropriate administrative action or proceeding or any action at law or equity to require compliance with the provisions of this Title, regulations adopted hereunder, the provisions of any permits or licenses issued hereunder, or administrative orders and determinations made hereunder.

* * *

§3-305 Orders

(1) Except as otherwise provided, and subject to the provisions of the Charter, whenever the Department of Public Health determines the existence of a violation of this Title, any regulations adopted hereunder, or the provisions of any license or permit issued hereunder, the Department may, in addition to any other remedy available at law or equity, enter an order against the person or persons responsible for the violations requiring such action or forbearance from action as the Department determines necessary to correct the violation.

* * *

(4) While an appeal from an order, as hereafter provided, is pending, compliance with such order shall not be required unless the Department of Public Health finds, and certifies in writing in such order, that immediate compliance is necessary to protect the public health. The pendency of an appeal from any order shall not operate to bar or stay proceedings in any court for the imposition of a penalty under §3-103 of this Title, nor shall such appeal bar any proceeding at law or equity under §3-103 (3) (c) to prevent, restrain or abate violation of the provisions of the order where the order contains a certification that immediate compliance is necessary to protect the public health.

# ALLEGHENY COUNTY HEALTH DEPARTMENT

## Rules and Regulations

## ARTICLE XVIII

## AIR POLLUTION CONTROL

## 1800 DEFINITIONS

For the purpose of this Article, whenever any of the following words or terms are used herein or in any action proceeding from the application of this Article, they shall have the meaning stated hereinafter unless the context clearly indicates otherwise.

### Advisory Committee

The Allegheny County Air Pollution Control Advisory Committee as established in Section 1806 of this Article.

### Air Contaminant

Any smoke, dust, dirt, noxious or obnoxious acid, fume, oxide, gas, vapor waste, toxic waste, particulate, pollen, radioactive solid, liquid or gaseous matter, odor-producing matter, or any other materials in the open air, but excluding uncombined water.

### Air Pollution

The presence in the ambient air of one or more air contaminants in sufficient quantity and of such characteristics and duration which may be expected to be injurious to human, plant, or animal life, or to property, or which interferes with the comfortable enjoyment of life and property throughout the County or throughout such areas of the County as shall be affected thereby.

### Air Pollution Control Device

Any chemical, article, machine, equipment, or other contrivance, the use of which may eliminate or reduce the emission of air contaminants into the open air.

### Air Pollution Episode

A period of time during which high air pollution concentrations may be brought about by meteorological parameters which are conducive to the poor dispersion of air contaminants. High concentrations are understood to mean those which result in significant harm to human health or welfare. An Air Pollution Episode is defined to exist only when either a County-wide or Localized Air Pollution Watch is in effect.

### Air Pollution Variance Board

The board established under the provisions of Section 1814 of this Article.

### Alert Stage

One of the three degrees of severity of air quality deterioration which can occur during a County-wide Air Pollution Watch, and which require specific control measures to avoid significant harm to human health or welfare. An Alert is not necessarily county-wide, but can occur only during a County-wide Watch.

**Ambient Air**

That portion of the atmosphere external to buildings to which the general public has access.

**Ambient Air Quality Standards**

Ambient air quality standards as set forth in this Article.

**Article**

Article XVIII of the Rules and Regulations of the Allegheny County Health Department.

**Authorized Representative**

An individual, firm, or corporation, designated by "person" as defined herein, who has authority to act on behalf of such persons in all matters pertaining to the Bureau of Air Pollution Control.

**Best Obtainable Technology**

Equipment, devices, systems, methods, or techniques which will prevent, reduce, or control emissions of air contaminants to the maximum degree possible and which are obtainable even if such equipment, devices, methods, or techniques are not in routine or actual use somewhere.

**Board of County Commissioners**

The Allegheny County Board of Commissioners.

**Board of Health**

The Allegheny County Board of Health.

**Board**

The Air Pollution Variance Board.

**Bureau**

Bureau of Air Pollution Control, Allegheny County Health Department.

**Clean Air Act**

42 U.S.C. 1857 *et seq*. as amended by the Air Quality Act of 1967, P.L. 90-148 and by the Clean Air Act Amendments of 1970, P.L. 91-604 and the Rules and Regulations promulgated thereunder.

**Committee**

The Allegheny County Air Pollution Control Advisory Committee.

### Condensed Fumes

The resulting collection in liquid or solid form, of matter emitted in vapor, gaseous, or particulate form, such matter resulting from sublimation, distillation, calcination, combustion, or other chemical or physical reaction.

### County

The Couty of Allegheny.

### County-Wide Air Pollution Watch

A period of time, defined solely on meteorological criteria, during which poor dispersion of air contaminants may occur throughout Allegheny County.

### Department

The Allegheny County Health Department.

Director

The Director of the Allegheny County Health Department or his or her designated representative.

Domestic Heating Plant

A plant generating heat for a single family residence, or for multiple-dwelling units in which such plant serves fewer than three dwelling units. Under this designation are: hot water heaters, stoves, and space heaters used in connection with the foregoing establishments or to heat temporary buildings such as those used by railroad and construction industries. Similar equipment, used in multiple-dwelling units other than herein described or in permanent buildings of commercial or industrial establishments, is not included under this designation.

Domestic Refuse-Burning Equipment

Any refuse-burning equipment or incinerator used for a single family residence, or for multiple-dwelling units.

Dust

Particulate matter air-borne or capable of becoming air-borne.

Episode Stage

One of the four degrees of severity of an air pollution episode, defined by the appropriate criteria to be either Watch, First Stage Alert, Second Stage Alert, or Emergency Stage.

Emissions

Air contaminants emitted into the open air.

Equivalent Opacity

The opacity which obscures vision to a degree equal to smoke of an equivalent Ringelmann number.

Flue

Any duct, pipe, stack, chimney, or conduit permitting air contaminants to be emitted into the open air. In order to be classified as a flue, such duct, pipe, stack, chimney, or conduit must be of such a nature as to permit the performance of the test methods and procedures specifically provided for in this Article.

Flue Gases

All gases which leave a combustion chamber by way of a flue, including gaseous products of combustion, water vapor, excess oxygen, and nitrogen.

### Forecast

A prediction of weather conditions received from a Professional Meteorologist in the Health Department or who is a consultant to the Health Department, or a weather prediction from the United States National Weather Service.

### Fuel-Burning or Combustion Equipment

Any furnace, boiler, apparatus, stack, and all appurtenances thereto, used in the burning of fuel for the primary purpose of producing heat or power by indirect heat transfer, or producing power by direct momentum transfer.

### Fuel

Any form of combustible matter, whether solid, liquid, vapor, or gas, or combination thereof, primarily for, intended for, or used as a source of heat.

### Fugitive Air Contaminants

Any air contaminant emitted into the open air from other than a flue.

### Incinerator

A device primarily used for the destruction of solid, liquid, or gaseous wastes, or combination thereof, by burning, but not primarily combustion or fuel-burning equipment or process equipment.

### Index

Any one of the air quality averages to be computed in conjunction with the Air Pollution Emergency Episode System. Four-, eight-, twelve-, and twenty-four hour averages refer to running arithmetic means of the hourly averages of the respective pollutants. The product index of the soiling index and sulfur dioxide concentration is to be computed by multiplying the running 12-hour or 24-hour soiling index by the respective running 12-hour or 24-hour sulfur dioxide concentration.

### Localized Air Pollution Watch

A period of time, defined solely on meteorological criteria, during which poor dispersion of air contaminants may occur only in a limited portion of Allegheny County.

### Localized Incident Level

One of the three degrees of severity of air quality deterioration which can occur where a Localized Air Pollution Watch is in effect, and which require specific control measures to avoid significant harm to human health or welfare.

## Modification

Any physical change in a source or any change in the method of operation of a source which will, or might reasonably be expected to, change the amount, effect, or characteristic of any air contaminant emitted by such source, or which would result in the emission of any air contaminant not previously emitted. Routine maintenance, repair, and replacement shall not be considered physical changes.

## Multiple-Chamber Incinerator

Any article, machine, equipment, contrivance, structure or part of a structure, used to dispose of combustible refuse by burning, consisting of three or more refractory-lined combustion chambers in series, which chambers are physically separated by refractory walls and interconnected by gas passage ports or ducts, and are of design employing parameters necessary for maximum combustion of the material to be burned.

Odorous Matter

Air contaminants perceptible by the sense of smell.

Opacity

The degree to which emissions of air contaminants reduce the transmission of light or obscure the view of an object in the background.

Open Air

All spaces outside of buildings, flues, chimneys, stacks, or exterior ducts or vents, or any area to which air contaminants pass beyond control.

Open Burning

Any burning or combustion from which air contaminants are emitted directly into the open air and not directed thereinto by a flue.

Particulate Matter

Any material, except uncombined water, that is, or has been, air or gas-borne and exists as a solid or liquid at 70°F and 14.7 pounds per square inch absolute pressure.

Part Per Million (ppm)

A unit of pollutant concentration defined as one volume of gaseous pollutant per million volumes of gas.

Person

Any individual, natural person, syndicate, association, partnership, firm, corporation, institution, agency, authority, department, bureau, or instrumentality of Federal, State, or Local Government, or other entity recognized by law as the subject of rights and duties.

Potential Emission

The quantity of air contaminants which may be emitted into the atmosphere from an air contaminant source operated at its maximum rated capacity without the use of any gas cleaning device. The potential emission may be determined by sampling at the inlet of the air pollution control device or by estimating the weight of emissions using estimating techniques approved by the Director.

Process

Any operation or series of operations, including all equipment, devices, or contrivances, and all appurtenances thereto, including all ducts, stacks, etc. for transforming materials into any product of manufacture, and which may cause any discharge of air contaminants into the open air, but not including that equipment specifically defined as fuel-burning or combustion equipment or incinerator. Similar or parallel operations within a process shall be considered as a single operation except where such aggregation would result in a greater allowable air contaminant emission rate.

### Process Equipment

Any machine, device, system, or contrivance, used in any process, the use of which may cause or contribute to any discharge into the open air of any air contaminant, but not including fuel-burning or combustion equipment or incinerator.

### Rated Capacity

The operating limit of a source as stated by the manufacturer or as determined by good engineering judgment.

### Reactivation

The activation of a source or potential source of air contaminants which has been out of production or operation for at least one year.

### Reconstruction

Any material change or alteration of any existing fuel-burning or combustion equipment, or process equipment, or device, from that physical or operating condition for which approval was last obtained; or the addition, removal, or replacement of any appurtenances or devices, which materially affects the method or efficiency of preventing the discharge of air contaminants into the open air.

### Rendering

A heated process, such as reduction, cooking, drying, dehydrating, digesting, evaporating, and protein processing.

### Refuse

Garbage, rubbish, trade waste, or other waste.

### Refuse-Burning Equipment

A device specifically designated for the combustion of refuse material. An incinerator.

### Ringelmann Scale

A scale by which the relative density of emissions of gray shade may be compared, consisting of five steps, wherein 0 is equivalent to all white and 5 is equivalent to all black; the steps range from 0 percent for no perceptible shade to one hundred (100) percent for black.

### Ringelmann Chart

A scale measurement system of grading the relative density of emissions of gray shade by comparison with certain charts as described in the Bureau of Mines Information Circular 8333.

### Soiling Index

The darkness of a stain on a standard filter paper caused by pulling a sample of air through the filter paper, measured by the reduction in the transmission of visible light through the stained paper, and expressed as the coefficient of haze (COH).

### Source

Any thing which emits or may emit an air contaminant, to which the provisions of this Article are applicable.

A New Source is any source the construction of which was commenced after the effective date of this Article, or any source that, although its construction was commenced or completed before the effective date of this Article, is modified after the effective date of this Article in a manner which results in a substantial increase in the emission of air contaminants or results in the emission of any air contaminant not previously emitted.

An Existing Source is any source other than a new source.

A Stationary Source is a source which does not move from place to place in its day-to-day operation.

Similar Sources are sources producing the same generic product or sources used for the same operation or on the same generic material.

A Potential Source is any source which would emit air contaminants if uncontrolled.

### Standard Conditions

A temperature of 70°F and a pressure of 14.7 pounds per square inch absolute.

### Trade Waste

Any waste resulting from the operation of any business, trade, or industry, including but not limited to plastics, cartons, paints, grease, oil and other petroleum products, chemicals, cinders, and any other form of solid, liquid, or gaseous waste materials.

### Visible Emissions

Emissions of air contaminants of such quantity or quality as to be seen in contrast with any background.

### Volatile Organic Compound

Any compound containing carbon in combination with any other element, excepting carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, metallic carbonates, and ammonium carbonate, and which compound has a vapor pressure of 1.5 pounds per square inch absolute or more, under actual storage or operating conditions.

## 1801 PURPOSE

The purpose of this Article is to achieve and maintain the purity of the air resources of Allegheny County consistent with the health, welfare, and comfort of the residents of the County and the protection of their property, and to that end to require the use of all obtainable methods of preventing and controlling air pollution in the County.

The provisions of this Article shall apply in all areas of Allegheny County unless otherwise specifically stated herein.

## 1802 PROHIBITION OF AIR POLLUTION

No person shall cause, suffer, or allow the release of air contaminants into the open air to cause air pollution as defined in this Article, except as provided by this Article.

## 1803 COMPLIANCE RESPONSIBILITIES

Compliance with any provision of this Article shall not relieve any person of the responsibility to comply with any other provision of this Article, except when such relief has been clearly provided for in this Article.

## 1804 CIRCUMVENTION

No person shall cause, suffer, or allow the use of any device or technique, including but not limited to the masking of odors, the operation of any source with unnecessary amounts of air, and the combining of separate sources except as specifically provided for in this Article, which without resulting in reduction of the absolute amount of air contaminants emitted conceals or dilutes an emission of air contaminants which would otherwise be in violation of the provisions of this Article.

## 1805 EXISTING ORDERS

All orders heretofore issued shall continue in full force and effect, but in no event shall such orders relieve any person from compliance with this Article.

## 1806 ADMINISTRATION AND ORGANIZATION

The provisions of these Rules and Regulations shall be administered and enforced by the Allegheny County Health Department, Bureau of Air Pollution Control, and by the Director of the Allegheny County Health Department pursuant to

.1 Amendments

Amendments to these Rules and Regulations shall be made in conformity with the Local Health Administration Law, 1951, Aug. 24, P.L. 1304, and the Second Class County Code, 1953, July 28, P.L. 723.

Public hearings shall be conducted by the Board of Health prior to its consideration of any significant amendment or additions to this Article.

.2 Air Pollution Control Advisory Committee

There shall be established an Air Pollution Control Advisory Committee which may recommend to the Board of Health additions and changes in this Article and advise the Bureau of Air Pollution Control and the Board of Health on matters relative to the control of air pollution which are brought to its attention by any person.

A. The Air Pollution Control Advisory Committee shall consist of fifteen (15) individuals appointed by the Board of County Commissioners.

B. All members of the Advisory Committee shall be appointed for a term of one (1) year.

C. The Director and the Bureau Chief shall be ex-officio members of the Committee but shall not have the right to vote on matters before the Committee.

D. At no time shall the Advisory Committee consist of more than five (5) members who are representatives of industry.

E. The Advisory Committee shall elect one of its members to serve as Chairman.

F. The Advisory Committee shall meet at the call of the Chairman or at the request of the Director of the Allegheny County Health Department, the Board of Health, or upon the written request of any three (3) members of the Advisory Committee.

G. The Advisory Committee shall adopt such procedures as it deems necessary to conduct its business and shall adopt such provisions as are necessary in order to consider matters which are brought to its attention by any person or group.

H. A quorum shall be required to conduct the business of the Advisory Committee. A quorum shall consist of not less than ten (10) voting members of the Advisory Committee.

I. Only those individuals who have been appointed to the Advisory Committee shall be permitted to vote on those matters which are to be recommended to the Board of Health.

J. The Advisory Committee shall make periodic reports to the Board of Health on the status of air pollution control technology including developments in the control of automotive emissions, air contaminants for which national ambient air quality standards have been established, hazardous air contaminants and other sources of air pollution as it deems necessary or as requested by the Board of Health or the Director.

.3 Right to Information

A. All records, reports, and information of the Allegheny County Health Department which pertain to the issuance of compliance orders, the granting or rejecting of permits or variances, the reporting of shutdowns or breakdowns, and the determination of emission rates or air quality data shall be open to inspection by any person except that any record, report, or information, or part thereof, which would divulge methods or processes protected as trade secrets under the laws of the United States shall be kept confidential and may not be disclosed to persons other than officers, employees, and authorized representatives of Allegheny County or to the Courts of the Commonwealth of Pennsylvania or the United States in proper proceedings.

B. The Director may make rules and regulations regarding the time and manner of inspection.

C. The Director may refuse such inspections which create an undue burden or interfere with the administration of the Health Department, or when it appears the information sought is to be used for commercial purposes, or when the information sought is prepared in anticipation of litigation or will be used in litigation in which the County is a party.

.4 Periodic Reports

The Allegheny County Health Department shall publish an annual air quality report detailing the progress of the County toward the attainment and maintenance of ambient air quality standards.

## 1807 COMPLIANCE ORDERS

.1 Whenever the Director finds that:

(1) A source is not in compliance with any of the provisions of this Article, or

(2) In any area of Allegheny County, a source or sources are causing concentrations of air contaminants in the ambient air to exceed any ambient air quality standard, or

(3) As a result of any physical, chemical, or biological test, or otherwise, it appears that an emission of air contaminants shall or may be endangering public health, safety, or welfare;

the Director may:

(1) Order the person responsible for the source or sources to comply with the provisions of this Article, or

(2) Establish an additional or more restrictive emission standard or standard of performance designed reasonably to attain all ambient standards, by

performing any necessary acts, including, but not limited to, the installation or maintenance of best obtainable or best available air pollution control devices, the use of particular fuels, the modification of process or fuel-burning or combustion equipment or incinerators, the institution of particular control practices, or

(3) Seal any source or part thereof.

.2 Whenever the Director issues an order hereunder, the order shall:

(1) Be in written form

(2) Include a statement of the basis for such order

(3) Specify a reasonable time for performance of any acts required in the order

(4) Inform the person responsible that he has the right to a hearing in accordance with Article XI of the Rules and Regulations of the Allegheny County Health Department.

.3 The order shall be served upon the person responsible by:

(1) Handing a copy to him personally, or

(2) By serving him in the manner provided by Rule 1009(b)(2) of the Pennsylvania Rules of Civil Procedure for the service of a complaint, or where service cannot be accomplished in this matter, by

(3) Sending a copy to his last known address by registered or certified mail, accompanied by a request for a return receipt.

.4 Failure to comply with an order of the Director within the time specified therein, or the breaking of a seal placed by the Director, shall be a violation of this Article.

.5 Whenever the Director determines that an emergency exists that necessitates immediate action to protect the health, safety, or welfare of the public, the Director, without prior notice, may issue an order reciting the existence of the emergency and requiring whatever action the Director deems advisable to meet the emergency. Notwithstanding other provisions of this Article, the emergency order shall be effective at once and shall be complied with immediately.

.6 Any person who is aggrieved by an order of the Director, shall upon requests, be granted a hearing in accordance with the provisions of Article XI of the Rules and Regulations of the Allegheny County Health Department or in accordance with other procedures as may be hereinafter established by the Board of County Commissioners. In all cases involving provisions of this Article, administrative hearings granted under the provisions of Article XI shall not be held before employees of the Department of Health assigned to the Bureau of Air Pollution Control.

.7 The provisions of this Section shall not apply to appeals from decisions of the Variance Board.

## 1808 INSPECTION

.1 A. The Director may enter any premise at a reasonable time and in a reasonable manner, by consent of the person in charge or his authorized representative, where the Director has reason to believe that air contaminants have been or are being emitted, or where equipment, operations, or processes exist or are being constructed giving the Director reason to believe that they are or will be actual or potential air contaminant sources, or for which equipment, operations, or processes the required permit or permits have not been obtained.

B. The Director may inspect the above described premises and all devices, contrivances, processes, or operations thereon; and the records, charts, readings, and data associated with such processes or operations thereon relevant to the emission of air contaminants.

.2 No person shall in any manner hinder, obstruct, delay, resist, prevent, or in any way interfere or attempt to interfere with the Director in the performance of any duty herein enjoined, or after proper identification, refuse him entrance to any premise, building, or other place, except a building designed for and used exclusively as a private residence.

## 1809 EMISSION STANDARDS

The following emission standards are applicable to all sources of air contaminants now existing or which come into existence after the effective date of this Article.

.1 Visible Air Contaminants

A. No person shall cause, suffer, or allow the emission into the open air of visible air contaminants in such a manner that the opacity of the emission is:

(1) Equal to or greater than No. 1 on the Ringelmann Scale or an equivalent opacity for a period or periods aggregating more than three (3) minutes in any one (1) hour, or

(2) Equal to or greater than No. 3 on the Ringelmann Scale or an equivalent opacity at any time.

B. The standards of Subsection .1A, shall not apply to any visible air contaminants when:

(1) The presence of uncombined water is the only reason for failure of the emission to meet the visible air contaminants standards, or

(2) Visible emissions result from a blast furnace slip, as provided in Section 1810.5, or

(3) Visible emissions result solely from the operation of a coke oven or battery of coke ovens as provided in Section 1809.7, or

(4) Visible emissions result solely from fugitive emissions excepted from the provisions of Section 1809.2, or

(5) Visible emissions result from the operation of an incinerator, as provided in Section 1809.5, or

(6) Visible emissions result solely from the cold start of fuel-burning or combustion equipment and when notice has been given as provided in Section 1816.

C. The opacity of visible air contaminants may be measured using:

(1) Any device approved by the Director, or

(2) Observers trained and qualified to measure opacity with the naked eye or with the aid of any device approved by the Director.

In measuring the opacity of visible air contaminants for the purpose of determining a violation of Subsection .1A., opacity may be measured at the densest point of an emission.

## .2 Fugitive Emissions

No person shall cause, suffer, or allow the emission into the open air of any fugitive air contaminant from any source except from:

(1) Construction or demolition of buildings or structures.

(2) Grading, paving, and maintenance of roads and streets.

(3) Use of roads and streets. Emissions from material in or on trucks, railroad cars, and other vehicular equipment shall not be considered as emissions from use of roads and streets.

(4) Clearing of land.

(5) Tilling or applying amendments to the soil, preparing cover crops for incorporation into the soil and harvesting, while farming.

(6) Stockpiling of materials.

### .3 Fuel-Burning or Combustion Equipment

For the purpose of this Subsection only, if more than one fuel-burning or combustion sources are connected to a common flue discharging into the open air, such groups of sources shall be considered as one source, and the allowable emissions shall be determined on the basis of the total heat input.

#### A. Particulate Matter

No person shall cause, suffer, or allow the emission into the open air of particulate matter at any time from any fuel-burning or combustion equipment in excess of:

(1) The rate of 0.4 lb. per million BTU of heat input, when the heat input to the fuel-burning or combustion equipment in millions of BTUs per hour is greater than 0.2 but less than 50, or

(2) The rate determined by the formula:

$$A = 3.5E^{-0.56}$$

where:

A = allowable emission in lb. per million BTU of heat input, and

E = heat input to the fuel-burning or combustion equipment in millions of BTUs per hour, when E is equal to or greater than 50 but less than 850, or

(3) The rate of 0.08 lb. per million BTU of heat input, when the heat input to the fuel-burning or combustion equipment in millions of BTUs per hour is equal to or greater than 850.

#### B. Sulfur Oxides

No person shall cause, suffer, or allow the emission into the open air of sulfur oxides, expressed as $SO_2$, from any fuel-burning or combustion equipment at any time in excess of:

(1) The rate of 1.0 lb. per million BTU of heat input, when the heat input to the fuel-burning or combustion unit in millions of BTUs per hour is greater than 0.2 but less than 50, or

(2) The rate determined by the formula:

$$A = 1.7E^{-0.14}$$

where:

A = allowable emission in lb. per million BTU of heat input, and

E = heat input to the fuel-burning or combustion equipment in millions of BTUs per hour, when E is equal to or greater than 50 but less than 2,000, or

(3) The rate of 0.6 lb. per million BTU of heat input, when the heat input to the fuel-burning or combustion equipment in millions of BTUs per hour is equal to or greater than 2,000.

.4 Processes

This Subsection shall apply to all processes except fuel-burning or combustion equipment and incinerators.

A. No person shall cause, suffer, or allow the emission into the open air of particulate matter from any process listed in Table I, at any time, in excess of the rate determined by the following formula:

$$A = 0.76E^{+0.42}$$

where:

A = allowable emissions in lbs./hr., and

E = emission index = F x W lbs./hr.,

where:

F = process factor in lbs./unit, and

W = production or charging rate in units/hr.

The factor F shall be obtained from Table I. The units for F and W shall be compatible.

B. No person shall cause, suffer, or allow the emission into the open air from any process not listed in Table I, in excess of seven (7) pounds of particulate air contaminant in any one-hour period or in excess of a total of one hundred (100) pounds of particulate air contaminants in any 24-hour period, except that no person shall be required to reduce such emission into the open air to a greater degree than ninety-nine (99) percent.

## TABLE I

| Process | Process Factor, F |
|---|---|
| 1. Carbon black mfg. | 500 lbs./ton of product |
| 2. Charcoal mfg. | 400 lbs./ton of product |
| 3. Crushing or grinding or screening system | 20 lbs./ton of feed |
| 4. Paint mfg. | 0.05 lbs./ton of pigment handled |
| 5. Phosphoric acid mfg. | 6 lbs./ton of phosphorous burned |
| 6. Detergent drying | 30 lbs./ton of product |
| 7. Ammonium nitrate mfg: | |
| Prilling tower or other granulator | 0.1 lbs./ton of product |
| 8. Ferroalloy production furnace | 0.3 lbs./ton of product |
| 9. Primary iron and/or steel making: | |
| Iron production | 100 lbs./ton of product |
| Sintering: windbox | 20 lbs./ton of dry solids feed |
| Steel production | 40 lbs./ton of product |
| Scarfing | 20 lbs./ton of product |
| 10. Primary lead production: | |
| Roasting | 0.004 lbs./ton of ore feed |
| Sintering: windbox | 0.2 lbs./ton of product |
| Lead reduction | 0.5 lbs./ton of product |
| 11. Primary zinc production: | |
| Roasting | 3 lbs./ton of ore feed |
| Sintering: windbox | 2 lbs./ton of sinter |
| Zinc reduction | 10 lbs./ton of product |
| 12. Secondary aluminum production: | |
| Sweating | 50 lbs./ton of aluminum product |
| Melting and refining | 10 lbs./ton of aluminum feed |
| 13. Brass and bronze production: | |
| Melting and refining | 20 lbs./ton of product |
| 14. Iron Foundry: | |
| Melting: | |
| Cupola | 50 lbs./ton of iron |
| Reverberatory Furnace | 2 lbs./ton of iron |
| Electric Induction Furnace | 1.5 lbs./ton of iron |
| Shake-out | 20 lbs./ton of sand |
| Sand Handling | 20 lbs./ton of sand |
| 15. Secondary lead melting | 0.5 lbs./ton of product |
| 16. Secondary magnesium melting | 0.2 lbs./ton of product |
| 17. Secondary zinc melting: | |
| Sweating | 0.01 lbs./ton of product |
| Refining | 0.3 lbs./ton of product |

| Process | Process Factor, F |
|---|---|
| 18. Asphaltic concrete production | 6 lbs./ton of aggregate feed |
| 19. Asphalt roofing mfg: | |
| Felt saturation | 0.6 lbs./ton of asphalt used |
| 20. Portland cement mfg: | |
| Clinker production | 150 lbs./ton of dry solids feed |
| Clinker cooling | 50 lbs./ton of product |
| 21. Coal drying | 2 lbs./ton of product |
| 22. Coal dry-cleaning | 2 lbs./ton of product |
| 23. Lime calcining | 200 lbs./ton of product |

### .5 Incinerators

A. No person shall cause, suffer, or allow the operation of a single chamber incinerator, except sewage sludge incinerators complying with the provisions of this Article.

B. No person shall cause, suffer, or allow the operation or installation of any incinerator without having obtained a permit as provided for in Section 1815.

C. No person shall cause, suffer, or allow the operation of any domestic refuse-burning equipment at any time other than between the hours of 10:00 A.M. and 4:00 P.M. This restriction shall not apply to incinerators having a rated capacity of five (5) tons per hour or more.

D. No person shall cause, suffer, or allow the emission to the open air of particulate matter from any incinerator at any time in such a manner that the particulate matter concentration in the effluent gas exceeds 0.125 pounds per 100 pounds per hour of rated capacity, except that for incinerators rated at four (4) tons per hour or greater the emission shall not exceed those shown on Table II.

TABLE II

| Rated Capacity, Tons/Hour | Emission, Pounds/Hour |
|---|---|
| 4 | 10 |
| 8 | 15 |
| 12 | 20 |
| 18 | 27 |
| 24 | 33 |
| 32 | 40 |
| 40 | 48 |

Apply linear interpolation between steps given.

E. For the purpose of Subsection .5, the rated capacity is defined as the amount of combustible material charged into the incinerator of which 95 percent will burn to gas.

F. All incinerators shall be constructed so that afterburning shall be for a residence time of 0.5 second at a temperature of:

(1) 1400° Fahrenheit for putrescible and non-chemical refuse.

(2) A minimum of 250° Fahrenheit above the auto-ignition temperature of any chemical refuse.

G. No person shall cause, suffer, or allow emission into the open air of visible air contaminants from incinerators in such a manner that the opacity of the emission is equal to or greater than No. 1 on the Ringelmann Scale or an equivalent opacity.

## .6 Sulfur Compound Emissions

A. General

Subsection 1809.6A. shall apply to all sources, except those subject to the provisions of other sections and subsections of this Article dealing with the control of sulfur compound emissions.

No person shall cause, suffer, or allow the emission into the open air of sulfur oxides from any source in such a manner that the concentration, at any time, of the sulfur oxides, expressed as $SO_2$, in the effluent gas exceeds 500 parts per million (dry basis).

B. By-product Coke-oven Gas

(1) No person shall cause, suffer, or allow the emission of by-product coke-oven gas into the open air unless such gas is first burned.

(2) No person shall cause, suffer, or allow the flaring, mixing, or combustion of by-product coke-oven gas containing hydrogen sulfide ($H_2S$), or the concentration of sulfur compounds measured as $H_2S$ in the gas in excess of:

(1) 50 grains per hundred dry standard cubic feet for by-product coke plants producing 70 million standard cubic feet or more of coke-oven gas per day, or

(2) The rate determined by the formula:

$$A = 156E^{-0.27}$$

for plants producing 70 million standard cubic feet or less of coke-oven gas per day but 20 million standard cubic feet or more of coke-oven gas per day, where:

A = allowable $H_2S$ content in grains per hundred dry standard cubic feet of coke-oven gas, and

E = millions of cubic feet of coke-oven gas produced per day, or

(3) 70 grains per hundred dry standard cubic feet of coke-oven gas for by-product coke plants producing less than 20 million standard cubic feet of coke-oven gas per day.

Included in the permitted grains of $H_2S$ is tail-gas sulfer, expressed as equivalent $H_2S$, emitted into the open air from sulfur removal equipment.

## .7 Coke Ovens

A. No person shall cause, suffer, or allow the emission into the open air of visible air contaminants from the pushing and charging of a battery of coke ovens in such a manner that the opacity of the emissions is equal to or greater than No. 2 on the Ringelmann Scale or equivalent opacity.

B. No person shall cause, suffer, or allow the emission into the open air of visible air contaminants from the pushing and charging of a battery of coke ovens after January 1, 1974 in such a manner that the opacity of the emissions is equal to or greater than No. 1 on the Ringelmann Scale or equivalent opacity.

C. No person shall cause, suffer, or allow the emission of any visible air contaminants into the open air from any opening on the top side of a battery of coke ovens, except for periods when a battery of coke ovens is being charged.

D. No person shall cause, suffer, or allow any visible emission, except non-smoking flame, from any opening from more than ten (10) percent of the coke ovens in any battery at any time except as provided in the preceding paragraph.

E. Self-sealing oven doors found to be leaking thirty (30) minutes or more after an oven is charged shall be adjusted, repaired, or replaced prior to the next coking cycle which starts during the daylight turn after the leak is discovered. Leaking luted doors shall be reluted immediately.

F. No person shall cause, suffer, or allow the operation of a coke quenching tower which is not equipped with interior baffles.

## TABLE III

1. Propagation, stockage, and processing of animals or animal matter
2. Combustion, including combustion of waste
3. Food and beverage processing
4. Manufacture, storage, and application of paint, lacquer, varnish, and commercial solvents
5. Manufacture and storage of chemicals
6. Manufacture and processing of plastics or rubber
7. Manufacture of asphalt and asphalt products
8. Surface coating and treating processes
9. Smelting and debonding
10. Core making in foundries
11. Manufacture of coke
12. Manufacture of rubber
13. Manufacture of tear gas
14. Refining of crude oil and manufacture and storage of petroleum products
15. Decomposition of waste
16. Sewage treatment
17. Dry cleaning process
18. Painting and other graphic arts processes

## TABLE IV

1. Rendering cookers
2. Animal blood dryers
3. Asphalt oxidation
4. Asphalt roofing manufacturing
5. Brake shoe debonding
6. Core ovens
7. Varnish cookers
8. Paint drying or baking ovens
9. Meat smokehouses other than those in single family houses
10. Coffee roasting
11. Fabric-backing and fabric-coating baking ovens
12. Ovens for curing of binders in mineral wool production
13. Tear gas manufacture
14. Sources of hydrogen sulfide or mercaptans

## 1810 STANDARDS FOR SOURCES

### .1 Volatile Organic Compounds

#### A. Storage of Volatile Organic Compounds

No person shall cause, suffer, or allow the placing, storing, or holding in any single stationary tank, reservoir, or other container rated at more than 40,000 gallons, of any volatile organic compound unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the open air or is designed and equipped with one of the following vapor loss control devices:

(1) A floating roof such as a pontoon type roof, a double-deck type roof, or an internal floating cover, which will rest on the surface of the liquid contents and be equipped with a closure seal or seals to close the space between the roof edge and tank wall. This control equipment shall not be permitted if the volatile organic compounds have a vapor pressure of 11.0 pounds per square inch absolute, or greater, under actual storage conditions. All tank gauging or sampling devices shall be gas-tight, except when tank gauging or sampling is taking place.

(2) A vapor recovery system, consisting of: a vapor-gathering system capable of collecting the volatile organic compound vapors and gases discharged, and a vapor disposal system capable of processing such volatile organic vapors and gases so as to prevent their emission to the open air, with all tank gauging and sampling devices gas-tight, except when gauging or sampling is taking place.

#### B. Volatile Organic Compounds Loading Facilities

(1) No person shall cause, suffer, or allow the loading of any volatile organic compound into any vehicular tank, rated at more than 200 gallons from any loading facility which loads 20,000 gallons or more in any one day, unless such loading facility is equipped with a vapor collection and disposal system as described in Subsection 1810.1A., properly installed, in good working order, and in operation.

(2) No person shall cause, suffer, or allow the loading of any volatile organic compound into any vehicular tank, rated at more than 200 gallons, from any loading facility which loads 20,000 gallons or more in any one day, unless such loading facility is equipped with a loading arm with a vapor collection adaptor and pneumatic, hydraulic, or other mechanical means to enforce a vapor-tight seal between the adaptor and the hatch of the tank. A means shall be provided to prevent liquid organic compound drainage from the loading device when it is not connected to

the hatch, or to accomplish complete draining before such removal. When loading is effected through means other than hatches all loading and vapor lines shall be equipped with fittings which make vapor-tight connections and which close automatically when disconnected.

C. Volatile Organic Compound Water Separators

No person shall cause, suffer, or allow the use of any compartment of any single- or multiple-compartment volatile organic compound water separator, which compartment receives effluent water containing 200 gallons or more a day of any volatile organic compound from any equipment which processes, refines, treats, stores, or handles volatile organic compounds consisting of kerosene or more volatile organic materials, unless such compartment is equipped with one of the following vapor loss control devices, properly installed, in good working order, and in operation:

(1) A container having all openings sealed and totally enclosing the liquid contents. All gauging and sampling devices shall be gas-tight, except when gauging or sampling is taking place.

(2) A container equipped with a floating roof such as a pontoon type roof, double-deck type roof, or internal floating cover, which will rest on the surface of the contents and be equipped with a closure seal or seals to close the space between the roof edge and container wall. All gauging and sampling devices shall be gas-tight, except when gauging or sampling is taking place.

D. Pumps and Compressors for Volatile Organic Compounds

All pumps and compressors handling volatile organic compounds shall have mechanical seals.

E. Ethylene Production Plants

No person shall cause, suffer, or allow the emission into the open air of any waste gas stream from any ethylene production plant or facility, unless the gas stream is properly incinerated in conformity with Subsection 1809.5F., except that no person shall cause, suffer, or allow the emission of hydrocarbon gases into the open air from any vapor blowdown or other exhaust system unless such gases are burned by smokeless flares or otherwise disposed of to the satisfaction of the Director.

F. Compliance Techniques

Techniques other than those specified in the foregoing five Subsections may be used to comply with the requirements of these Subsections, if it is shown to the satisfaction of the Director that such alternate techniques are equivalent to or better than those specified in these Subsections in terms of the control of organic compounds.

G. Unsaturated Organic Compound Emissions

The emission standards as specified in Section 1809 shall also apply to the emission of any unsaturated organic material herein defined, for the purpose of this Subsection, as unsaturated chemical compounds of carbon which exist as gas at standard conditions.

.2 Sulfuric Acid Plants

A. No person shall cause, suffer, or allow the emission into the open air, at any time, from any sulfuric acid production plant or facility, of sulfur oxides, expressed as $SO_2$, in excess of the rate of 6.5 lbs. per ton of acid produced.

B. No person shall cause, suffer, or allow the emission into the open air, at any time, from any sulfuric acid production plant or facility, of sulfuric acid mist, in excess of the rate of 0.5 lbs. per ton of acid produced, the production being expressed as 100 percent $H_2SO_4$.

.3 Sulfur Recovery Plants

No person shall cause, suffer, or allow the emission into the open air, at any time, from any plant used for recovering elemental sulfur from gases containing sulfur compounds, or sulfur compounds, expressed as $SO_2$, in excess of the rate determined by the formula:

$$A = 0.32E^{-0.5}$$

where:

A = allowable emissions in pounds of sulfur oxides per pound of sulfur compounds, expressed as S, in the feed gases, and

E = recovery plant rating in long tons of sulfur per day.

.4 Exceptions to Standards for Sulfur Acid and Recovery Plants

The provisions of Subsections 1810.2 and 1810.3 shall not be applicable to processes operated in conjunction with the desulfurization of by-product coke-oven gas, provided that the standards set forth in Subsection 1809.6B. have been complied with.

.5 Blast Furnace Slips

A. Emissions from blast furnaces shall be kept to a minimum. No person shall cause, suffer, or allow any blast furnace to emit air contaminants, as a result of a slip, more than sixty (60) times in any consecutive twelve (12) month period or more than ten (10) times in any consecutive thirty (30) day period. For the purpose of this Subsection, a blast furnace slip is defined as a sudden emission of gas containing particulate matter of an opacity equal to or greater than

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No. 2 of the Ringelmann Scale or of an equivalent opacity from the relief valves at the top of the furnace.

B. No person shall cause, suffer, or allow the operation of any blast furnace without providing a device for measuring and recording all blast furnace slips. Such device or devices must be approved by the Director.

C. All devices used for observing and recording blast furnace slips shall be maintained in good order. Safe and adequate means for inspection of such devices shall be provided by the person responsible for the blast furnace.

D. All persons responsible for blast furnaces shall make available to the Director, on request, the records of the required observation and recording devices. These records shall be deemed as an admission by the responsible person of the number of blast furnace slips occurring, but they shall not be deemed as a limit on the Director's action to present evidence that a greater number of slips occurred than the records indicate.

### .6 Slag Quenching

No person shall cause, suffer, or allow the water quenching of slag at any slag handling location, except if such quenching is performed under conditions which prevent the discharge of hydrogen sulfide or other air contaminants into the open air.

### .7 Open Burning

A. No person shall cause, suffer, or allow the open burning of any material, except where a permit has been obtained from the Director or where the open burning is conducted solely for the purpose of noncommercial preparation of food for human consumption or for recreation.

B. The Director may issue a permit for the open burning of material during a period set by the Director, but only when the open burning is solely for:

(1) The abating of a fire hazard when a fire is set by or under the supervision of a public officer.

(2) The instruction of personnel in fire fighting

(3) The fostering of agriculture

(4) The conducting of a ceremony

(5) Light, ornament, or other purpose contributing a negligible amount of air contaminants.

C. Coal Refuse Fires

(1) The persons responsible for any coal refuse pile or dump shall in the case of a fire in the pile or dump:

(1) Report such fire to the Director upon discovery, and

(2) Extinguish such fire at once, or demonstrate to the satisfaction of the Director that all necessary steps are being taken to extinguish such fire, and

(3) Report the status of such fire to the Director at such periods as he may require.

(2) No person shall cause, suffer, or allow the establishment of a coal refuse pile or dump until a permit has been obtained from the Director. The Director shall not grant a permit unless adequate measures have been taken to prevent the ignition of the coal refuse pile or dump, such a removal of all combustible material and vegetation from the site, protection from trespassing, and such other requirements as the Director may deem necessary in view of local conditions.

## 1811 REPORTING AND TESTING OF SOURCES

### .1 Reporting

Any person who owns or operates a source of air contaminants, shall, within ninety (90) days after order by the Director, report to the Director in a form prescribed by the Director such information as the Director may require and is necessary to assess the actual and potential contribution of the source to the air quality of the County, including, but not limited to, information on the quantity and nature of potential or actual emissions and the nature and effectiveness of any gas cleaning devices operating in conjunction with the source.

### .2 Testing

A. If there is reasonable cause to believe that any equipment or process is in violation of any provision of this Article, or if there is reasonable cause to believe that a source is a substancial contributor to the degradation of air quality, the Director may conduct emission or ambient air tests or may order the person responsible for such source to conduct and complete, within a specified period of time, under conditions prescribed by the Director, such tests as the Director deems necessary. The results of such tests shall be submitted to the Director within twenty (20) days after the tests have been completed.

B. At the request of the Director, the person responsible for such a source shall provide adequate sampling ports, safe sampling platforms, and adequate utilities for the performance of tests at such source by the Director.

C. Whenever a test is required to be performed by a person who is responsible for a source, such test and results will be accepted by the Director only if:

(1) Such tests are made and the results calculated in accordance with test procedures approved by the Director, and

(2) The Director has been given reasonable notice of the testing and has been given reasonable opportunity to observe and participate in the testing, and

(3) The testing is conducted under the direct supervision of persons qualified by training and experience satisfactory to the Director to conduct such testing, and

(4) The reports of the tests are accurate and comprehensive.

D. Stationary Sources

(1) The following are applicable to source tests for determining emissions from stationary sources:

(1) All performance tests shall be conducted while the source is operating at maximum routine operating conditions or under such other conditions, within the capacity of the equipment, as may be requested by the Director.

(2) The Director shall consider test results for approval where sufficient information is provided to verify the source conditions existing at the time of the test and where adequate data is available to show the manner in which the test was conducted. Information submitted to the Director shall include, as a minimum:

(a) A thorough description of the source, of any gas cleaning device, and the flue, and

(b) Source operating conditions, e.g., charging rate of raw material or rate of production of final product, combustion rate, boiler pressure, oven temperature, and other conditions which may affect emissions from the source, and

(c) The location of the sampling ports, and

(d) Effluent characteristics, including velocity, temperature, moisture content, gas composition, and density, e.g., percent $SO_2$, $CO_2$, $O_2$, and $N_2$, and static and barometric pressures at pertinent points in the system, and

(e) Sample collection techniques employed, including procedures used, equipment descriptions, data to verify that isokinetic sampling occurred, where applicable, for particulate matter collection, and that acceptable test conditions were met, and,

(f) Laboratory procedures and results, and

(g) Calculated results.

(2) The following are applicable to tests for determining emissions of particulate matter from stationary sources:

(1) Test methods for particulate emissions shall include dry filters, or wet impingers, or both, as the Director may specify, and provide for at least a ninety-five (95) percent collection efficiency of particulate matter.

(2) Isokinetic sampling procedures shall be used whenever it is possible to apply them in sampling for particulate matter emissions, and the weights of all soluble and insoluble particulate shall be determined gravimetrically after removal of uncombined water.

(3) Test methods and procedures shall be equivalent to, or modified to produce results equivalent to, those results which would be obtained by employing the procedures specified in References 1 and 2 of Subsection 1811.2F. The equipment shall be inert where appropriate and similar to that specified in References 1, 2, and 3 of Section 1811.2F).

(4) The minimum sampling time shall be one hour, and the minimum sample volume shall be fifty (50) cubic feet corrected to standard conditions (dry basis).

(5) Results shall be reported both as pounds of particulate matter per hour and in accordance with units specified in Subsections 1809.3, 1809.4, and 1809.5 pertaining to fuel-burning or combustion equipment, processes, or incinerators.

(6) Where the Director determines that the above methods and procedures are not applicable, the Director shall specify the appropriate sampling and testing procedures.

(3) The following are applicable to tests for determining emissions of $SO_x$, $H_2S$, and $NO_x$ from stationary sources:

(1) Test methods for $SO_x$, $H_2S$, and $NO_x$ shall provide for at least ninety-five (95) percent collection efficiency of oxides of sulfur, hydrogen sulfide, and oxides of nitrogen,

respectively.

(2) Sample collection for $SO_x$ shall be at a rate proportional to the stack gas velocity, where applicable, and the weight of oxides of sulfur shall be determined volumetrically.

(3) Test methods and procedures for $SO_x$ shall be equivalent to, or modified to produce results equivalent to, those results which would be obtained by employing the procedures specified in Reference 2 of Subsection 1811.2F. The equipment shall be inert where appropriate and similar to that specified in Reference 2 of Subsection 1811.2F.

(4) Sample collection for $H_2S$ shall be at a rate proportional to the stack gas velocity, where applicable, and the weight of hydrogen sulfide shall be determined colorimetrically.

(5) Test methods and procedures for $H_2S$ shall be equivalent to, or modified to produce results equivalent to, those results which would be obtained by employing the procedures specified in Reference 4 of Subsection 1811.2F. The equipment shall be inert where appropriate and similar to that specified in Reference 2 of Subsection 1811.2F.

(6) For determining emissions of $SO_x$ and $H_2S$, the minimum sampling time shall be one (1) hour and the minimum sample volume shall be thirty (30) cubic feet corrected to standard conditions (dry basis).

(7) Test methods, procedures, and equipment for $NO_x$ shall be similar to those specified in Reference 1 of Subsection 1811.2F.

(8) Results shall be reported as pounds per hour of $SO_x$ as $SO_2$, pounds per hour of $H_2S$, or pounds per hour of $NO_x$ as $NO_2$, and in accordance with units specified in the Sections and Subsections covering sulfur compounds, fuel-burning or combustion equipment, by-product coke-oven gas, sulfuric acid plants, and sulfur recovery plants.

(4) Test methods and procedures for determining emissions of contaminants other than particulate matter, $SO_x$, $H_2S$, and $NO_x$, from stationary sources shall be consistent with accepted air pollution testing practices and with obtaining accurate results which are representative of the conditions evaluated, and such procedures shall be approved by the Director and shall be clearly recorded in the report of test results.

(5) Test methods and procedures for fugitive particulate matter may include ambient test procedures approved by the Director and in

accordance with or equivalent to procedures specified in References 4, 5, 6, 7, 8, and 9 of Subsection 1811.2F. and other provisions of this Article.

(6) The Director may issue a supplement to this Section containing detailed information on source test methods and procedures and indicating the information that should be contained in a report of emissions.

(7) Where the Director determines that the methods and procedures set out in Subsection 1811.2 are not applicable, the Director shall specify the appropriate sampling and testing procedures.

E. Ambient Levels of Air Contaminants

Methods for determining ambient levels of air contaminants are as follows:

(1) Sampling and analytical methods that may be used directly or used as reference standards against which other methods may be calibrated. These methods are set out in Table V.

TABLE V

| Contaminants | Reference Standards<br>Sampling Method | Analytical Method |
|---|---|---|
| Settled particulates (total) | open top cylinder (6) | gravimetric (6) |
| Lead | high-volume filtration (7) | spectrographic (7) |
| Beryllium | high-volume filtration (7) | spectrographic (7) |
| Sulfates (as $H_2SO_4$) | high-volume filtration (7) | turbidimetric (8) |
| Fluorides (total soluble, as HF) | filtration plus gas absorption (9) | thorium-alizarin lake titration (9) |
| Hydrogen Sulfide | gas absorption (4) | methylene blue method (4) |
| Suspended Particulate Matter | high-volume filtration (7) | gravimetric (7) |

The numbers following the reference standards refer to references compiled at the end of Subsection 1811.2F.

(2) Sampling and analytical procedures promulgated by the Administrator of the United States Environmental Protection Agency pursuant to the provisions of the Clean Air Act are hereby incorporated, by reference, as part of the methods listed in this section.

F. References

(1) "Standards of Performance for New Stationary Sources," Federal Register Part II, Volume 36, No. 247, pp. 24876-24895, December 23, 1971, Washington, D.C.

(2) Devorkin, H., et al. "Air Pollution Source Testing Manual," Los Angeles Air Pollution Control District, Second Printing, November, 1965.

(3) "Standard Method for Sampling Stacks for Particulate Matter," American Society for Testing Materials, D 2928-71, 1916 Race Street, Philadelphia, Pennsylvania.

(4) Jacobs, M. D. et al., "Ultramicrodetermination of Sulfides in Air," *Anal. Chem.*, 29:1349 (1957).

(5) "Air Sampling Instruments," 2nd ed., American Conference of Governmental Industrial Hygiesists, 1014 Broadway, Cincinnati 2, Ohio, 1962, pp. B-3-12-B-3-14.

(6) "Recommended Standard Method for Continuing Dust Fall Survey (APM-1, Revision 1)," TR-2 Air Pollution Measurements Committee, *J. Air Poll. Control Assoc.*, 16:372 (1966).

(7) "Air Pollution Measurements of the National Air Sampling Network: Analyses of Suspended Particulates 1957-1961," Public Health Service Pub. No. 978, Washington, D.C., 1962.

(8) Interbranch Chemical Advisory Committee, "Selected Methods for the Measurement of Air Pollutants," PHS Pub. No. 999-AP-11, Cincinnati, Ohio, 1965, p. I-1.

(9) "Standard Method of Test for Inorganic Fluoride in the Atmosphere," ASTM Standards on Methods of Atmospheric Sampling and Analyses, Philadelphia, Pennsylvania, 1962, p. 67.

## 1812 AMBIENT AIR QUALITY STANDARDS

.1 National Ambient Air Quality Standards promulgated by the Administrator of the United States Environmental Protection Agency pursuant to the provisions of the Clean Air Act, are hereby incorporated, by reference, as part of the standards of this Section.

.2 The Ambient Air Quality Standards adopted by the Pennsylvania Environmental Quality Board, pursuant to the provisions of the "Air Pollution Control Act," 1960, January 8, P.L. (1959) 2119, are hereby incorporated, by reference, as part of the standards in this Section.

.3 A suspended particulate matter concentration of 350 ug/m$^3$, averaged over four (4) hours, not to be exceeded, is adopted as part of the standards in this Section.

.4 The values specified in this Section shall be considered as representing minimum acceptable air quality, not necessarily desirable or satisfactory air quality. Nothing contained in this Section shall be construed to preclude the Director from enforcing or applying any provisions of this Article in areas where the ambient air quality is, or will be, at concentrations less than those specified in this Section.

## 1813. AIR POLLUTION EPISODE SYSTEM

### .1 General

A. The purpose of this Section is to provide the Bureau with the authority and means to act to decrease the severity and duration of high air pollution episodes. Air pollution episodes are understood to be periods of time during which high air pollution concentrations may be brought about by meteorological parameters which are conducive to the poor dispersion of air contaminants. Such concentrations are defined as those which result in significant harm to human health or welfare.

B. Such concentrations are to be avoided by staged reductions in the emission of air pollutants and general reduction in activities which place demands upon air pollution sources or which result in generation of air pollutants either directly or indirectly, in conjunction with air quality measurements and meteorological forecasts. The goal of the staged reductions is the avoidance of conditions which would result in significant harm to human health or welfare.

C. The Department shall make available information on the location of air monitoring facilities and the sampling and data handling techniques employed.

D. In the absence of episode conditions, if the Director nevertheless finds that emissions from the operation of one or more air contamination sources is causing imminent danger to human health, safety, or welfare, he may order the persons responsible for the sources to reduce or discontinue emissions immediately without regard to the other provisions of this Section.

E. Nothing contained in this Section shall be construed as allowing an emission from any installation in Allegheny County to be subject to a lesser degree of control than may be required by existing or new regulations.

### .2 Air Pollution Source Curtailment Plans

A. Any person responsible for a source of air contamination or a potential source of air contamination as set forth in Table VI shall, upon written request of Director, submit source curtailment plans, consistent with good industrial practice and safe operating procedures, designed to reduce emissions of air contaminants during episode periods described in this Section.
Such plans shall be designed to achieve the goals set forth in paragraph (C) of this subsection, and with any further guides developed by the Department in the administration of this Section.

## TABLE VI

Coal or oil-fired electric power generating facilities.

Coal or oil-fired steam generating facilities.

Manufacturing industries in the following classifications:

- primary metals
- secondary metals
- metal fabricating
- coke making
- paper and allied products
- chemical and allied products
- petroleum refining and related industry
- stone, glass, clay, and concrete products

Asphalt Plants
Incinerators
Slag Handling Operations
Other Sources as Designated by Director

B. Source curtailment plans as required above shall be in writing and show the source of emissions, the approximate emissions rate and percentage of reductions to be achieved upon implementation, the time necessary after notification to implement the plan, and a brief description of the manner in which reductions will be achieved at the respective Stages or Levels of an air pollution episode.

C. Source curtailment plans shall specify three phases of curtailment actions. These phases will be understood to correspond to the respective Alert Stages or Localized Incident Levels, unless otherwise provided for in individual source curtailment plans. The goal of the first phase of curtailment is the reduction of air contaminant emissions to a level that would result if the source were in compliance with the appropriate emission standards contained in other sections of this Article. Subject to the approval of the Director, plans may specify that the first phase emission reductions required of a non-complying source may instead be brought about by the curtailment of another source (or sources) within that plant. The goal of the second phase of curtailment is the substantial reduction of emissions of air contaminants, where significant, by ceasing, curtailing, deferring or postponing production and allied operations. The goal of the third phase of curtailment is the elimination of emissions of air contaminants by ceasing, curtailing, deferring, or postponing production and allied operations. Curtailment shall be obtained without causing injury to persons or substantial damage to equipment.

D. Source curtailment plans for incinerators shall specify what preparations have been made to handle and store, or otherwise dispose of refuse without incineration.

E. During episodes, source curtailment plans required by this Section shall be on the premises and made available to any person authorized to enforce the provisions of this Article.

F. If a submitted plan, as required by Section 1813.2A, is not acceptable to the Director, he shall issue an order within sixty (60) days directing the responsible person to modify and resubmit the plan within thirty (30) days after receiving notice. The order shall specify the reason or reasons for disapproval and shall specify the changes or additions necessary to make the plan acceptable to the Director. In the event that the person responsible for a source fails to resubmit a plan or fails to resubmit a plan in accordance with the changes or additions recommended by the Director, the Director, in addition to any other remedies available to him in this Article, shall have the authority to issue an order to that person detailing the procedures for that person to follow during the various stages of an air pollution episode and which will be considered the source curtailment plan for that source.

G. Any person responsible for operation of a source for which a source curtailment plan has been submitted, shall advise the Bureau in writing of any changes affecting the technical content or the implementation of the plan within thirty (30) days of their occurrence. Such submittals shall be processed according to the procedures described in Section 1813.2F.

H. The Director shall have the authority, upon his determination that particular sources are adversely contributing to an air pollution episode, to order such sources to implement the procedures of their source curtailment plans. Upon notification by the Director of the existence of an episode and the need to implement a source curtailment plan, the individual responsible for the operation of an air pollution source shall implement such a plan.

I. On the basis of plans submitted in accordance with the foregoing provisions and on other information available to the Director, the Director shall maintain a master plan describing procedures and plans to be followed by the Department, sources, and the public, at each stage of an air pollution episode.

.3 Episode Criteria

A. County-wide Air Pollution Watch Declaration Criteria and Alert Declaration Criteria

(1) County-wide Air Pollution Watch: A County-wide Air Pollution Watch shall be declared by the Director when either of the following conditions has been met.

a. The Bureau has received a meteorological forecast that for the next 36-hour period or more a condition exists in which atmospheric dispersion parameters may lead to an air pollution episode throughout Allegheny County, or

b. The Bureau has received a meteorological forecast that for the past 12 hours a condition has existed in which atmospheric dispersion parameters may lead to an air pollution episode throughout Allegheny County, and that this condition will continue for at least the next 24 hours.

(2) First Stage Alert: The Director may declare a First Stage Alert to exist if, during a County-wide Watch period, any of the following values have been equalled or, exceeded at any official monitoring station judged by the Bureau to be in working condition provided that the Bureau has obtained a forecast that for the next 24 hours or more atmospheric dispersion parameters conducive to the poor dispersion of air contaminants will exist.

The First Stage Alert values are:

| | | |
|---|---|---|
| Sulfur Dioxide ($SO_2$) | | 0.30 ppm, 24-hour average |
| Particulates | either | 3.0 COH/1000 ft., 24-hour average, or 375 ug/m3, 24-hour average |
| ($SO_2$) x Particulates | either | 0.20 ppm COH/1000 ft., 24-hour average, or 65 x $10^3$ (ug/m3)2, 24-hour average |
| Carbon Monoxide (CO) | | 15 ppm, 8-hour average |
| Oxidants | | 0.2 ppm, 1-hour average |
| Nitrogen Dioxide | either<br>or | 0.6 ppm, 1-hour average,<br>0.15 ppm, 24-hour average |

(3) Second Stage Alert: The Director shall declare a Second Stage Alert to exist if, during a County-wide Watch period, any of the following values have been equalled or exceeded at any official monitoring station judged by the Bureau to be in working condition provided that the Bureau has obtained a forecast that for the next 12-hour period or more atmospheric dispersion parameters conducive to the poor dispersion of air contaminants will exist.

The Second Stage Alert values are:

| | |
|---|---|
| Sulfur Dioxide ($SO_2$) | 0.60 ppm, 24-hour average |

|  |  |  |
|---|---|---|
| Particulates | either<br>average, or | 5.0 COH/1000 ft., 24-hour<br>625 $ug/m^3$, 24-hour average |
| ($SO_2$) x Particulates | either<br>average, or<br>average | 0.8 ppm, COH/1000 ft., 24-hour<br>261 x $10^3$ $(ug/m^3)^2$, 24-hour |
| Carbon Monoxide (CO) |  | 30 ppm, 8-hour average |
| Nitrogen Dioxide ($NO_2$) | either<br>or | 1.2 ppm, 1-hour average<br>0.30 ppm, 24-hour average |
| Oxidants |  | 0.40 ppm, 1-hour average |

(4) Third Stage Alert: The Director shall declare a Third Stage Alert to exist if, during a County-wide Watch period, any of the following values have been equalled or exceeded at any official monitoring station judged by the Bureau to be in working condition, provided that the Bureau has obtained a forecast that for the next 12-hour period or more atmospheric dispersion parameters conducive to the poor dispersion of air contaminants will exist.

The Third Stage values are:

|  |  |  |
|---|---|---|
| Sulfur Dioxide ($SO_2$) |  | 0.80 ppm, 24-hour average |
| Particulates | either<br>average, or | 7.0 COH/1000 ft., 24-hour<br>393 x $10^3$ $(ug/m^3)^2$, 24-hour |
| ($SO_2$) x Particulates | either<br>average, or<br>average | 1.2 ppm COH/1000 ft., 24-hour<br>393 x $10^3$ $(ug/m^3)^2$, 24-hour |
| Carbon Monoxide (CO) |  | 40 ppm, 8-hour average |
| Nitrogen Dioxide ($NO_2$) | either<br>or | 1.60 ppm, 1-hour average,<br>0.40 ppm, 24-hour average |
| Oxidants |  | 0.60 ppm, 1-hour average |

(5) Third Stage Alert: The Director may declare a Third Stage Alert to exist if, during a First or Second Stage oxidant alert, the Bureau has obtained a forecast that within the next 36-hour period Third Stage oxidant levels will be reached.

B. Localized Air Pollution Watch Declaration Criteria and Localized Incident Declaration Criteria

(1) Localized Air Pollution Watch: A localized Air Pollution Watch shall be declared by the Director when either of the following conditions has been met:

a. The Bureau has received a meteorological forecast that for the next 24-hour period atmospheric dispersion parameters will exist which are conducive to an air pollution episode only in a limited portion of Allegheny County, or

b. The Bureau has received a meteorological forecast that atmospheric dispersion parameters which are conducive to an air pollution episode only in a limited portion of Allegheny County have existed for 12 hours and will continue for at least the next 12 hours.

(2) First Level Localized Incident: The Director may declare a First Level Localized Incident to exist if any of the following values have been equalled or exceeded at an official monitoring station where a Localized Watch is in effect, provided that the station is judged by the Bureau to be in working condition and is located in a specific portion of Allegheny County for which more atmospheric dispersion parameters conducive to the poor dispersion of air contaminants will exist.

The First Level Localized Incident values are:

| | | |
|---|---|---|
| Sulfur Dioxide ($SO_2$) | | 0.45 ppm, 24-hour average |
| Particulate | either average, or | 4.0 COH/1000 ft., 24-hour<br>500 $ug/m^3$, 24-hour average |
| ($SO_2$) x Particulates | either average, or | 0.5 ppm COH/1000 ft., 24-hour average<br>162.5 x $10^3$ ($ug/m^3$) 24-hour average |

(3) Second Level Localized Incident: The Director may declare a Second Level Localized Incident to exist if any of the following values have been equalled or exceeded at an official monitoring station where a Localized Watch is in effect, provided that the station is judged by the Bureau to be in working condition and is located in a specific portion of Allegheny County for which the Bureau has obtained a forecast that for at least the next 6 hours atmospheric dispersion parameters conducive to the poor dispersion of air contaminants will exist.

The Second Level Localized Incident values are:

| | | |
|---|---|---|
| Sulfur Dioxide ($SO_2$) | | 0.70 ppm, 24-hour average |
| Particulates | either average, or | 6.0 COH/1000 ft., 24-hour<br>750 $ug/m^3$, 24-hour average |
| ($SO_2$) x Particulates | either average, or | 1.0 ppm COH/1000 ft., 24-hour average<br>325 x $10^3$ $(ug/m^3)^2$, 24-hour average |

(4) Third Level Localized Incident: The Director may declare a Third Level Localized Incident to exist if any of the following values have been equalled or exceeded at an official monitoring station where a Localized Watch is in effect, provided that the station is judged by the Bureau to be in working condition and is located in a specific portion of Allegheny County for which the Bureau has obtained a forecast that for at least the next 6 hours atmospheric dispersion parameters conducive to the poor dispersion of air contaminants will exist.

The Third Level Localized Incident values are:

| | |
|---|---|
| Sulfur Dioxide ($SO_2$) | 0.8 ppm, 24-hour average |
| Particulates | either 7.0 COH/1000 ft., 24-hour average, or 875 ug/$m^3$, 24-hour average |
| ($SO_2$) x Particulates | either 1.2 ppm COH/1000 ft., 24-hour average, or 393 x $10^3$ (ug/$m^3$)$^2$, 24-hour average |

C. Termination Criteria

(1) Any Alert or Localized Incident shall be terminated when the respective Declaration Criteria no longer are exceeded or when a meteorological forecast is received that for the next 24-hour period conditions conducive to the good dispersion of air contaminants will exist. The latter criterion will be used to terminate a Watch. A Watch or Localized Incident or a First, Second, or Third Stage Alert shall be terminated by the Director.

(2) Upon the termination of any Alert or Localized Incident, the Director shall make a public announcement to that effect and shall also notify those persons who were required to implement source curtailment plans.

(3) Upon the termination of a Second or Third Stage Alert, or a Second or Third Level Localized Incident, the Director shall prepare and make available to the Advisory Committee and the public a report on the severity and duration of the preceding air pollution episode and the nature and effectiveness of measures taken to control the episode.

### .4 Episode Actions

A. Air Pollution Watch Actions

(1) The Bureau shall review air-quality information for the past 24-hour period, determine the current operational status of the air pollution monitoring network, and continue to compute all relevant air quality indices.

(2) The Bureau shall notify all sources of air pollution that require advance preparation time that a Watch has been declared and that within a short period of time air pollution emissions reductions may have to be effected.

(3) The Bureau shall notify all affected staff and affected State, Local and Federal agencies that a Watch is in effect and that coordination of episode control actions may be required.

B. First Stage Alert Actions

Upon declaration of a First Stage Alert:

(1) The Bureau shall determine which source curtailment plans should be placed in effect and in which area and notify those sources to institute First Stage Alert curtailment actions.

(2) The Bureau shall notify all affected Local, State, and Federal agencies that a First Stage Alert is in effect and that coordination of episode control actions may be required.

(3) The Bureau shall inform the public via the mass media that a First Stage Alert is in effect. The public may be requested to curtail use of automobiles and electricity in the alert area and to otherwise take actions required by this Article. Individuals sensitive to high levels of air pollution shall be advised to take precautionary measures.

(4) All open burning of tree waste, vegetation, refuse, or debris of any form shall be prohibited in the alert area, notwithstanding the existence of any variance or program of delayed compliance.

(5) Incinerators used for the disposal of solid or liquid waste in the alert area shall be operated only between the hours of 12:00 Noon and 4 p.m., unless otherwise provided for by individual source curtailment plans.

C. Second State Alert Actions

Upon the declaration of a Second Stage Alert:

(1) The Bureau shall determine which source curtailment plans should be placed in effect and in which areas and notify those sources to institute Second Stage Alert curtailment actions.

(2) The Bureau shall notify each Allegheny County Commissioner, each Board of Health Member, and all affected Local, State, and Federal agencies that a Second State Alert is in effect and that coordination of episode control actions may be required.

(3) The Bureau shall inform the public via the mass media that a Second Stage Alert is in effect. The public shall be requested to curtail use of automobiles and electricity in the alert area and to otherwise take actions required by these regulations. Commercial establishments involved in retail trade, amusement, and recreation; office buildings; and all other businesses and institutions shall be requested by the Bureau to voluntarily reduce their consumption of electricity and to minimize heating, cooling and ventilating of their buildings and offices. The Bureau shall advise those individuals deemed to be particularly sensitive to high levels of air pollution to take precautionary measures.

(4) All open burning of tree waste, vegetation, refuse or debris, of any form, shall be prohibited in the alert area, notwithstanding the existence of any variance or program of delayed compliance.

(5) Incinerators used for the disposal of solid or liquid wastes in the alert area shall not be operated with the exception of those used for the incineration of pathogenic materials for which written permission to operate has been obtained from the Director, or unless otherwise provided for by individual source curtailment plans.

## D. Third Stage Alert Actions

Upon the declaration of a Third Stage Alert:

(1) The Bureau shall notify each Allegheny County Commissioner, each Board of Health Member, and all affected Local, State, and Federal agencies that a Third Stage Alert is in effect and that coordination of episode control actions is required.

(2) The Bureau shall inform the public via the mass media that a Third Stage Alert is in effect and the extent of the area affected. Those individuals deemed to be particularly sensitive to high levels of air pollution shall be advised to take appropriate precautionary measures. Hospitals shall be informed that a Third Stage Alert has been declared and that increased demand upon their facilities may be imminent. Public buildings, apartment houses, commercial facilities, air pollution sources permitted to operate during a Third Stage, office buildings, and other buildings, offices and factories listed in the Episode Master Plan shall be required to minimize heating, air conditioning, and ventilation.

(3) Second Stage Alert prohibitions of open burning and incineration shall remain in effect during the Third Stage Alert.

(4) The Bureau shall determine which source curtailment plans should be placed in effect and in which areas and notify those sources to institute Third Stage Alert curtailment actions.

(5) The Bureau shall determine the likely extent of the area containing sources responsible for the exceedance of Third Stage levels. For that area, the Bureau shall determine which activities described hereafter, in addition to those with source curtailment plans, shall immediately be curtailed to the extent possible without causing injury to persons or substantial damage to equipment, and shall make appropriate public announcements to this effect.

(1) Mining and quarrying.

(2) Construction work.

(3) Airplane flights into and out of the major airports within that area, with the exception of those required by public health or safety as approved by the Director.

(4) Other activities and places of business as announced by the Chairman of the Board of County Commissioners.

(5) All places of employment described hereafter which are located in areas known to have significant concentrations of motor vehicle activity:

   a. Manufacturing establishments.

   b. Places of business and public offices and institutions, with the exception of those listed in Table VII.

## TABLE VII

Retail food stores.

Health care facilities.

Pharmacies.

Government agencies, boards, authorities, courts, and other public or private offices whose services are needed to administer and enforce the Air Pollution Episode program or have been determined by the Director of the Allegheny County Health Department to be vital to the public safety, health, or welfare.

News media.

Others as approved by the Director.

### E. Localized Incident Actions

(1) The Bureau shall review air quality information for the past 24-hour period, determine the current operational status of the air pollution monitoring network, and continue to compute all relevant air quality indices.

(2) The Bureau shall notify all affected staff and affected State, Local and Federal agencies that a Localized Incident is in effect and that coordination of episode control actions may be required. The Bureau shall notify each Allegheny County Commissioner and each Board of Health Member upon the declaration of a second or third level incident.

(3) The Bureau shall determine which source curtailment plans should be placed in effect and in which area and notify those sources to institute curtailment actions for the appropriate declared Localized Incident Level.

(4) The Bureau shall inform the public via the mass media that a Localized Incident is in effect. Individuals sensitive to high levels of air pollution shall be advised to take precautionary measures.

## 1814 VARIANCES

### .1 The Air Pollution Variance Board

A. There shall be established an Air Pollution Variance Board consisting of five (5) members, appointed by the Board of County Commissioners, who shall have the power to grant variances in conformity with this Section. The Board of County Commissioners shall designate one member to serve as Chairman. Those individuals appointed to the Board of Air Pollution Appeals and Variance Review under Article XVII of the Allegheny County Health Department Rules and Regulations, effective January 1, 1970, shall serve as members of the Air Pollution Variance Board until the expiration of their original appointments. Members of the Air Pollution Variance Board appointed subsequent to the effective date of this Article shall be appointed for a term of four (4) years. The following criteria shall be followed in appointing members to the Board:

(1) Members of the Board shall be residents of the County of Allegheny.

(2) One member shall be an engineer registered by the Commonwealth of Pennsylvania.

(3) One member shall be a physician licensed to practice in the Commonwealth of Pennsylvania.

(4) One member shall be an attorney admitted to practice law before any court in the United States.

B. Criteria establishing general conduct of the Board's business are as follows:

(1) All action of the Board shall be by a majority of the members of the Board.

(2) Meetings of the Board shall be held at the request of the Chairman or at such other times as the majority of the Board shall determine.

(3) The Board shall have the power to adopt and enforce such rules of procedure as it may deem necessary to perform its duties as provided in this Article.

(4) Any member of the Board who has any personal interest in any petition for a variance which is before the Board shall disqualify himself from consideration of such petition.

C. The Director shall designate a Secretary of the Air Pollution Variance Board, who shall be authorized to receive petitions, accept service on behalf of the Board, and perform such other duties as the Board may require, including, but not limited to, notifying the

Director of the status of compliance with each condition attached to a variance.

## .2 Petitions

The Air Pollution Variance Board may grant an exemption or variance from compliance with any emission standard or other standard of performance set forth in this Article, except those contained in Section 1813, upon the petition of the person responsible for the air contamination source for which such an exemption is sought. The petition shall be filed with the Secretary of the Board and shall include or shall be accompanied by the following:

(1) One hundred dollars ($100) in cash or a certified check in that amount payable to the Treasurer of the County of Allegheny

(2) The name, address, and telephone number of the petitioner and any other person authorized to receive notice

(3) The type and location of the operations giving rise to the emissions for which a variance is sought, including a description of the process or activity giving rise to such emissions

(4) The quantity and nature of such emissions in the same units as is the standard for which a variance is being sought

(5) Each provision of this Article for which a variance is sought

(6) A detailed plan setting forth all steps the petitioner proposes to take to reduce such emissions to a level permitted by this Article, including a schedule indicating the dates upon which each intermediate step shall be completed and the date upon which full compliance with the standards and requirements of this Article shall be achieved, and the period for which a variance is sought.

(7) The reasons why full compliance with the standards and requirements of this Article cannot be attained at any time prior to the date of full compliance set forth in petitioner's plan

(8) Any and all other information and data which the Board may reasonably require.

## .3 Variance Standards

A. The Board shall grant any petition for a variance, in whole or in part, upon a review of the petition and accompanying material and upon any additional investigations which the Board may conduct, provided the Board finds that:

(1) Such action will not prevent or interfere with attainment or maintenance of any ambient air quality standard contained in this Article within the time prescribed for the attainment of

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such ambient air quality standard by the Clean Air Act, or the Commonwealth of Pennsylvania, whichever time is the lesser, and

(2) The quality and level of emissions from the source at the expiration of the variance will comply with the applicable standards of this Article, and

(3) Such action is reasonable, considering: the toxicity and other effects of such emissions on the public health, safety, and welfare; the meteorological factors affecting the dispersion of the emissions; the land use characteristics of the areas affected by the emissions; efforts taken by the petitioner to comply with provisions of this Article and any article that was in effect prior to the effective date of this Article, which efforts are related to those contaminants which are the subject of the petition; the status of compliance of the petitioner; and any other relevant factors.

B. In granting a variance, the Board may set reasonable terms and conditions including, but not limited to, the following:

(1) The gradual reduction of emissions during the variance period

(2) The reduction, cutback, or alteration of operations giving rise to the emissions for which the variance is sought

(3) The development of new air pollution control technology by the petitioner

(4) The submission of periodic progress reports of the steps taken to reduce emissions

(5) The sampling of emissions and the monitoring and recording of emissions and any operating conditions that may affect the emissions, at such locations, at such intervals of time, and in accordance with such methods and procedures as the Board may prescribe, results of which shall be submitted to the Board.

### .4 Variance Conditions

A. Any variance granted pursuant to this Section shall be granted for a period of time not to exceed two (2) years, and may be renewed after additional public hearings for additional periods of time, not to exceed one (1) year each, and not to extend beyond a total of four (4) years from the granting of the initial variance. A petition for the renewal of a variance must be submitted to the Board at least sixty (60) days prior to the expiration of the period for which the variance was originally granted, and must comply with the requirements for submission of a variance petition as prescribed in this Section. The filing of a petition for an additional variance shall not operate as a stay of prosecution.

B. The Board may, for good cause, revoke, modify, amend, or change, in whole or in part, at any time, any granted variance. Without intending to limit the generality of the immediately preceding sentence, the failure to perform, within the time specified for such performance, any condition or requirement attached to the grant of a variance, shall constitute sufficient cause to revoke such variance.

C. Any petition which complies with the requirements of this Section and which is received by the Board before October 1, 1972, shall operate as an automatic stay of prosecution for violations of those provisions of this Article with respect to which the variance is sought, until one (1) year after the effective date of this Article or until the Board renders a decision on such petition, whichever comes first. But in no event shall the filing of any petition for a variance, or the grant thereof, relieve the petitioner from full compliance with any orders and permits heretofore issued or any stipulations and agreements heretofore entered into by the Director, nor shall such filing in any way preclude the Director from pursuing any and all remedies available to him at law or in equity to enforce such orders, permits, stipulations, or agreements.

D. No variance may be granted for the operation of any single chamber incinerator except sewage sludge incinerators.

.5 Procedures

A. Notwithstanding the existence of a variance, any person responsible for any air contamination source, who is required by this Article to prepare a Source Curtailment Plan, shall be subject to prosecution for violation of any provision of this Article during a First Stage Alert, Second Stage Alert, or Emergency Stage of an air pollution episode.

B. The Board shall conduct a public hearing on each petition for a variance. The Board may adopt such rules and procedures as it deems necessary to conduct such public hearings which shall be subject to the following criteria:

(1) Parties to a variance hearing may include, aside from the petitioner, the Director of the Allegheny County Health Department and other intervening parties who petition the Board under procedures established by it.

(2) Any party involved may appear with counsel, file written arguments, offer testimony, cross-examine witnesses, or take any combination of such actions pursuant to the procedures established by the Board.

(3) In any case where a person seeking a variance contends that

compliance with any provision of this Article is not practical or possible because of the cost involved either in installing air pollution control equipment or changing or curtailing his operation in any manner, he shall make available to the Board such financial records as the Board may require.

(4) All testimony taken before the Board shall be under oath and may be recorded stenographically. The transcripts of the record shall be made available to any person upon payment of the fair charges therefor.

(5) The Board shall notify the Director and any parties of record of all petitions for a variance it receives thirty (30) days prior to any hearing on the petition.

(6) All hearings must be conducted in the presence of at least three (3) members of the Board. The Chairman of the Board may appoint any member to conduct the hearing, and the Chairman or member conducting the hearing shall have authority to administer oaths and do all other necessary and proper duties in the conducting of a hearing.

(7) Any person who petitions for a variance in excess of eighteen (18) months or who petitions for a renewal or extension of a variance shall advertise the time and place of the variance hearing, and include in such notice the name of the petitioner, the source of emissions and emissions standard for which a variance is sought, a statement that any person may present testimony at the variance hearing, and a telephone number at which relevant information may be obtained. Such notice shall be advertised in a prominent place and size in two newspapers of general circulation at least twenty (20) days before such hearing.

(8) The Board shall hold a public hearing not less than thirty (30) days after the filing of a petition for variance and shall generally make a final decision within ninety (90) days after the date of the original hearing.

(9) All decisions of the Board shall be in writing, shall contain findings of fact and the reasons for the decision, and shall be served on all parties and the Director personally or by certified mail. If service is made by certified mail, the date of receipt shall be considered the date of service for the purpose of any appeal.

(10) Any decision of the Board rendered pursuant to this Article shall be final. Any appeal therefrom shall be made to the Court of Common Pleas of Allegheny County pursuant to the provisions of Local Agency Law 1968, December 2, P.L. ______, No. 353 § 1, effective January 1, 1969.

## .6 Stay of Proceedings

In any case the Director may, upon application of any petitioner, grant a stay of all proceedings, including prosecutions for violations of this Article, pending the decision of the Board.

## 1815 PERMITS AND FEES

### .1 Permits

#### A. Purpose

It is the purpose of this Section to insure that:

(1) All applicable emission standards and standards of performance will be complied with by persons operating or intending to operate sources of air contaminants, by prior review of all plans for the construction, modification, installation, replacement, or reactivation of sources of air contaminants and air pollution control devices and by periodic review of compliance with permit conditions

(2) In areas of Allegheny County in which existing air quality is superior to any ambient air quality standard, such air quality will be generally maintained

(3) All new sources of air contaminants shall control emissions to the maximum extent possible by the use of the best obtainable technology.

#### B. Installation Permits

(1) After the effective date of this Article, no person shall be permitted to construct, install, modify, replace, or reactivate any device, machine, system, equipment, or other source of air contaminants which may result in the emission of air contaminants into the open air, or any device, machine, system, or equipment which may eliminate, reduce, or control the emission of air contaminants into the open air, unless he has obtained an Installation Permit for the construction, installation, modification, replacement, or reactivation of such device, machine, system, or equipment.

(2) The provisions of Subsection 1815.1B. shall not apply to fuel-burning or combustion equipment of a net load rating of 200,000 BTU per hour or less, motor vehicles or other devices used for overland transportation, or incinerators used exclusively for domestic purposes in buildings containing fewer than three dwelling units.

(3) Applications for Installation Permits shall be made on forms prepared by the Director for such purpose. The application

forms may call for information as the Director may require to determine whether the permit should be issued. Applications shall be accompanied by the required fee as determined by Schedule I.

(4) The Director shall reject any application for an Installation Permit if he finds that:

(1) The proposed installation, construction, modification, replacement, or reactivation will result in emissions of air contaminants which are in excess of amounts permitted by this Article; or where no standards have been prescribed by this Article, the Director finds that all available methods to prevent and control the emissions of air contaminants have not been utilized, or

(2) The operation of the installation would prevent the attainment and maintenance of any ambient air quality standard defined in this Article, or

(3) For new sources, the installation does not utilize the best obtainable technology to control the emission of air contaminants from the source, or does not meet standards for new sources or sources of hazardous air contaminants prescribed by the Commonwealth of Pennsylvania or by the Administrator of the Environmental Protection Agency pursuant to the Clean Air Act, or

(4) The information required by the Director in the application has not been supplied or is not adequate to permit the evaluation of the permit application.

(5) To insure the continued compliance with the standards of this Article, Installation Permits issued hereunder may be subject to such terms and conditions as the Director may require. The Director may require that Installation Permits include: requirements for continued maintenance, alternate operational or control plans designed to bring about a reduction of air contaminants on an interim basis in compliance with Section 1813, provisions to equip the source of air contaminants with adequate facilities to monitor and record the emissions of air contaminants, and any operating conditions that may affect the emissions of air contaminants.

(6) An Installation Permit may be revoked at any time if the Director finds that any statement made in the permit is not true or has not been complied with, or that the control of air contaminants will not be in the manner or to the degree stated in the permit, or that the terms and conditions of the permit have not been complied with in any manner.

## C. Operating Permits

(1) No person shall operate any device, equipment, system, machine, or other source of air contaminants which may, if uncontrolled, result in the emission of air contaminants, or any device, equipment, system, or machine which may eliminate, reduce, or control the emission of air contaminants into the open air, unless he has obtained an Operating Permit or a Variance Operating Permit for the operation of such device, machine, equipment, or system, except that the Director may permit the temporary operation of devices, equipment, systems, or machinery for which an Installation Permit has been issued for the sole purpose of demonstrating or testing its potential for the emission of air contaminants.

(2) The provisions of this Subsection shall not apply to fuel-burning or combustion equipment of a net load rating of 200,000 BTU per hour or less; motor vehicles or other devices used for overland transportation; incinerators used exclusively for domestic purposes in buildings containing fewer than three dwelling units; or devices, equipment, machinery, or other sources of air contaminants for which a variance has been obtained under the provisions of this Article and which are subject to the requirements for Variance Operating Permits.

(3) Applications for Operating Permits shall be made on forms prepared by the Director for such purpose. The application forms may call for such information as the Director may require to determine whether the permit should be issued. Applications shall be accompanied by the required fee as determined from Schedule II.

(4) The Director shall reject any application for an Operating Permit if he finds that:

    (1) The operating of the source of air contaminants will result in emissions which are in excess of amounts allowed by this Article; or where no standards have been prescribed by this Article, the Director finds that methods to prevent or control air contaminants are not being utilized, or

    (2) The operation of the installation would prevent the attainment and maintenance of any ambient air quality standard defined in this Article, or

    (3) For new sources, the operation does not utilize the best obtainable technology to control the emission of air contaminants from the source, or does not meet standards for new sources or sources of hazardous air contaminants prescribed by the Commonwealth of Pennsylvania or by the Administrator of the Environmental Protection Agency

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pursuant to the Clean Air Act, or

(4) The information required by the Director on the application has not been supplied or is not adequate to permit evaluation of the permit application.

(5) Operating Permits issued hereunder may be subject to such terms and conditions as the Director may require. To insure the continued compliance with the standards of this Article, the Director may require that Operating Permits include: requirements for continued maintenance, alternate operational or control plans designed to bring about a reduction of air contaminants on an interim basis in compliance with Section 1813, provisions to equip the source of air contaminants with adequate facilities to monitor and record the emissions of air contaminants, and any operating conditions that may affect the emissions of air contaminants.

(6) Operating Permits issued prior to the effective date of this Article shall remain in effect until December 31, 1972. In no event, however, shall the provisions hereunder applicable to Operating Permits prevent revocation of a permit for the reasons specified hereunder or exempt the permit holder from any of the provisions of this Article. Operating Permits issued after December 31, 1972 shall be valid during that calendar year of its issuance, unless revoked pursuant to the provisions set forth hereunder.

(7) Operating Permits shall be renewed annually upon payment of the required fee set forth in Schedule II and a finding by the Director that:

(1) All of the terms and conditions of the Operating Permit are being complied with, and

(2) All of the provisions of this Article are being complied with.

(8) The Director may revoke a permit at any time, whenever:

(1) Any of the terms and conditions of permit have been violated, or

(2) Any provision of this Article has been violated, or

(3) Air pollution control equipment installed under the conditions of the permit has not been maintained in good condition, or

(4) The Director has been denied access pursuant to a lawful inspection to any premises upon which the subject equipment is located.

D. Variance Operating Permit

(1) No person shall operate any device, system, machine, equipment, or other source of air contaminants for which a variance has been applied for, unless such person has obtained a Variance Operating Permit.

(2) Applications for Variance Operating Permits shall be made on forms prepared by the Director. The application forms may call for such information as the Director may require. An Application for a Variance Operating Permit must be received within five (5) days after the filing of the petition for a variance. The application shall be accompanied by the required fee as determined from Schedule III.

(3) The Director shall reject any application for a Variance Operating Permit if he finds that no petition for a variance has been filed.

(4) Variance Operating Permits shall be valid for one year, or until such time as the Board denies a variance petition, or in the event a variance is granted, until such variance expires or is revoked, whichever of the above occurs soonest.

(5) Variance Operating Permits shall be renewed annually by the payment of the required fee set forth in Schedule III, provided that the Director finds that:

  (1) The petition for variance has not yet been decided upon, or

  (2) That a granted variance is still in effect.

(6) The Director may revoke any Variance Operating Permit at any time he finds that the terms of the variance are not being complied with.

E. Receipt of an Installation or Operating Permit shall not exempt any person from complying with any provisions of this Article, nor shall it exempt any person from prosecution for violations of this Article, nor shall it connote certification of compliance.

F. Whenever any application for an Installation, Operating, or Variance Operating Permit is rejected, or any Installation, Operating or Variance Operating Permit is revoked, the Director shall notify the person involved in writing setting forth the reasons. Any person aggrieved by the rejection or revocation of any permit application or permit shall be entitled to an administrative hearing pursuant to the provisions of Article XI of the Rules and Regulations of the Allegheny County Health Department.

G. Installation, Operating, or Variance Operating Permits may not be transferred from one person to another, and are valid only for the specific source of air contaminants for which they are issued.

.2 Fees

A. The Director may not issue any Installation, Operating, or Variance Operating Permit, except for temporary operation, unless he has received the fee, in cash or a certified check payable to the Treasurer of Allegheny County, in accordance with the schedules herein.

B. In the case of fuel-burning or combustion equipment, rating or rated capacity shall be used to calculate the fee. Fees shall be required for each individual piece of fuel-burning or combustion equipment.

C. In the case of process equipment, for processes listed in Table I, the tons per hour is to be calculated on the basis of product, feed, material handled, or other denominator of the Process Factor. In the case of process equipment, for processes not listed in Table I, tons per hour is calculated on the weight of the product. Fees shall be required for each individual piece of process equipment.

## SCHEDULE I - INSTALLATION PERMITS

### Fuel-burning or Combustion Equipment

| | |
|---|---|
| 200,000 BTU per hour to 1 million BTU per hour or less | $ 5.00 |
| 1 million BTU per hour to 5 million BTU per hour or less | 10.00 |
| 5 million BTU per hour to 10 million BTU per hour or less | 15.00 |
| 10 million BTU per hour to 50 million BTU per hour or less | 25.00 |
| 50 million BTU per hour to 100 million BTU per hour or less | 50.00 |
| 100 million BTU per hour to 500 million BTU per hour or less | 75.00 |
| 500 million BTU per hour to 1000 million BTU per hour or less | 100.00 |
| 1000 million BTU per hour to 2000 million BTU per hour or less | 125.00 |
| 2000 million BTU per hour to 3000 million BTU per hour or less | 150.00 |
| 3000 million BTU per hour to 4000 million BTU per hour or less | 200.00 |
| Over 4000 million BTU per hour | 300.00 |

### Process Equipment

| | |
|---|---|
| 0 to 1 ton per hour | $ 25.00 |
| 1 to 10 tons per hour | 75.00 |
| 10 to 100 tons per hour | 150.00 |
| Over 100 tons per hour | 300.00 |

## Incinerators

| | |
|---|---|
| Domestic incinerators serving less than three (3) dwelling units | $ 5.00 |
| Incinerators having less than 4 square feet of horizontal cross-sectional area in the primary combustion chamber | 25.00 |
| Incinerators having 4 square feet or more of horizontal cross-sectional area in the primary combustion chamber | 50.00 |

Fees for Installation permits shall be deducted from the first annual Operating Permit fee.

## SCHEDULE II - OPERATING PERMITS

### Fuel-burning or Combustion Equipment

| | |
|---|---|
| 200,000 BTU per hour to 1 million BTU per hour or less | $ 5.00 |
| 1 million BTU per hour to 5 million BTU per hour or less | 10.00 |
| 5 million BTU per hour to 10 million BTU per hour or less | 15.00 |
| 10 million BTU per hour to 25 million BTU per hour or less | 25.00 |
| 25 million BTU per hour to 50 million BTU per hour or less | 50.00 |
| 50 million BTU per hour to 100 million BTU per hour or less | 100.00 |
| 100 million BTU per hour to 500 million BTU per hour or less | 200.00 |
| 500 million BTU per hour to 1000 million BTU per hour or less | 300.00 |
| 1000 million BTU per hour to 2000 million BTU per hour or less | 400.00 |

| | |
|---|---|
| 2000 million BTU per hour to 3000 million BTU per hour or less | $500.00 |
| 3000 million BTU per hour to 4000 million BTU per hour or less | 600.00 |
| Over 4000 million BTU per hour | 700.00 |

### Process Equipment

| | |
|---|---|
| 0 to 1 ton per hour | $ 20.00 |
| 1 to 10 tons per hour | 100.00 |
| 10 to 100 tons per hour | 200.00 |
| Over 100 tons per hour | 400.00 |

### Incinerators

| | |
|---|---|
| Domestic incinerators serving less than three (3) dwelling units | No fee |
| Incinerators having less than 4 square feet of horizontal cross-sectional area in the primary combustion chamber | $ 25.00 |
| Incinerators having 4 square feet or more of horizontal cross-sectional area in the primary combustion chamber, per square foot of horizontal cross-sectional area of such horizontal cross-sectional area | 10.00 |

## SCHEDULE III - VARIANCE OPERATING PERMITS

### Fuel-burning or Combustion Equipment

| | |
|---|---|
| 200,000 BTU per hour to 1 million BTU per hour or less | $ 7.00 |
| 1 million BTU per hour to 5 million BTU per hour or less | 15.00 |
| 5 million BTU per hour to 10 million BTU per hour or less | 22.00 |

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| | |
|---|---|
| 10 million BTU per hour to 25 million BTU per hour or less | $ 37.00 |
| 25 million BTU per hour to 50 million BTU per hour or less | 75.00 |
| 50 million BTU per hour to 100 million BTU per hour or less | 150.00 |
| 100 million BTU per hour to 500 million BTU per hour or less | 300.00 |
| 500 million BTU per hour to 1000 million BTU per hour or less | 400.00 |
| 1000 million BTU per hour to 2000 million BTU per hour or less | 500.00 |
| 2000 million BTU per hour to 3000 million BTU per hour or less | 600.00 |
| 3000 million BTU per hour to 4000 million BTU per hour or less | 750.00 |
| Over 4000 million BTU per hour | 900.00 |

### Process Equipment

| | |
|---|---|
| 0 to 1 ton per hour | $ 30.00 |
| 1 to 10 tons per hour | 150.00 |
| 10 to 100 tons per hour | 300.00 |
| Over 100 tons per hour | 600.00 |

### Incinerators

| | |
|---|---|
| Domestic incinerators serving less than three (3) dwelling units | No fee |
| Incinerators having less than 4 square feet of horizontal cross-sectional area in the primary combustion chamber | $ 37.00 |
| Incinerators having 4 square feet or more of horizontal cross-sectional area in the primary combustion chamber, per square foot of horizontal cross-sectional area of such horizontal cross-sectional area | 15.00 |

## 1816 SHUTDOWN OR BREAKDOWN OF EQUIPMENT

### .1 Shutdown

In the event of shutdown of any air pollution control device for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Director, and his approval obtained, at least 24 hours prior to the planned shutdown. Such prior report shall include:

(1) Identification of the specific device to be taken out of service as well as its location and permit number

(2) The expected length of time that the device will be out of service

(3) The nature and quantity of emissions of air contaminants likely to occur during the shutdown period

(4) Measures, such as the use of extra labor and equipment, that will be taken to minimize the length of the shutdown period

(5) The reasons that it will be impossible or impractical to shut down the source of air contaminants during the shutdown period

(6) Other information required by the Director.

### .2 Breakdown

A. In the event that any air pollution control device or related facility breaks down in such a manner as to cause the emission of air contaminants in violation of this Article, the person responsible for such device shall immediately notify the Director of such failure or breakdown and provide a written statement giving all the pertinent facts, including the estimated duration of the breakdown. The Director shall be notified when the condition causing the failure or breakdown has been corrected and the device is again in operation.

B. In no case shall the reporting of a breakdown prevent the prosecution for any violation of this Article.

### .3 Cold Start

In the event that any person intends to perform a cold start on any fuel-burning or combustion equipment, such intent shall be reported to the Director at least 24 hours prior to the planned cold start. Such report shall include the expected time and duration of the startup.

## 1817 PENALTIES

### .1 Summary Offenses

Any person who violates any of the provisions of this Article or any rule or regulation of the Allegheny County Department of Health or who interferes with the Director or any other agent of the Department of Health in the discharge of his official duties, shall, for the first offense, upon conviction thereof in a summary proceeding before any alderman or justice of the peace of Allegheny County, or before any police magistrate if such offense be committed in a city of the second class, be sentenced to pay the costs of prosecution and a fine of not less than thirty ($30) dollars nor more than three hundred ($300) dollars and, in default thereof, to undergo imprisonment of not less than ten (10) days nor more than thirty (30) days.

### .2 Misdemeanors

Any person who violates any of the provisions of this Article or any rule or regulation of the County Department of Health or who interferes with the Health Director or any other agent of the Department of Health in the discharge of his official duties, convicted of a second or subsequent offense, shall be guilty of a misdemeanor and shall, upon conviction thereof, be sentenced to pay a fine of not less than five hundred ($500) dollars nor more than one thousand ($1,000) dollars or to undergo imprisonment not exceeding one (1) year, or both.

### .3 Separate Offenses

For the purpose of this Section, violations on separate days shall be considered separate offenses. Each violation of any separate subsection or section of this Article shall constitute a separate offense.

### .4 Other Remedies

The remedies prescribed by this Article shall be deemed concurrent, and the existence of or exercise of any remedy shall not prevent the Commissioner of the Director from exercising any other remedy they may have at law or in equity.

## 1818 NUISANCES

Any violation of any section of this Article shall constitute a nuisance.

## 1819 APPLICATION FOR INJUNCTIVE RELIEF

In addition to any other remedies provided for in this Article, the Board of Health or the Director may request the Board of County Commissioners to petition the Allegheny County Court of Common Pleas for an injunction to restrain any violation of this Article.

## 1820 OTHER RIGHTS AND REMEDIES PRESERVED

Nothing in this Article shall be construed as impairing any right or remedy, now or hereafter existing in equity or under common or statutory law, to abate private or public nuisances, nor shall the Court of Common Pleas of Allegheny County be deprived of such jurisdiction for the reason that such nuisance constitutes air pollution.

## 1821 SEVERABILITY CLAUSE

The provisions of this Article shall be severable. If any provision of this Article is found by a court of record to be unconstitutional or void, the remaining provisions of the Article shall, nevertheless, remain valid; unless the court finds the valid provisions of the Article are so essentially and inseparably connected with, and so depend upon, the void provision that it cannot be presumed that the Commissioners would have enacted the remaining valid provisions without the void ones, or unless the court finds the remaining valid provisions, standing alone, are incomplete and are incapable of being executed in accordance with the Commissioners' intent.

## 1822 REPEALER

Article XVII, Rules and Regulations of the Allegheny County Health Department, effective January 1, 1970, is hereby repealed.

This article shall become effective on 1972.

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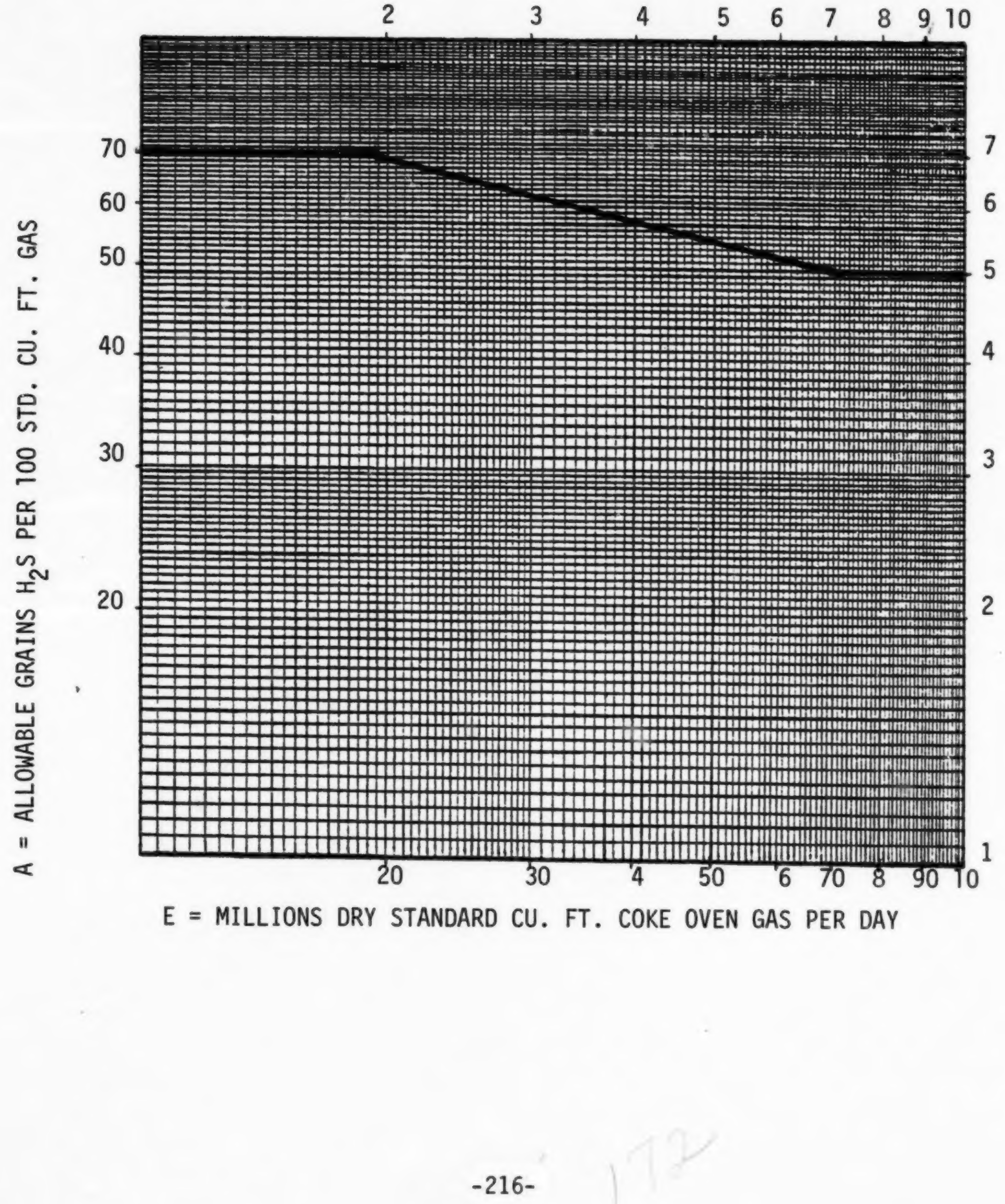
# APPENDIX TO ARTICLE XVIII

- Allowable Emission Graphs
  - Coke Oven Gas: Sulfur Compounds
  - Sulfur Oxides: Fuel-Burning or Combustion Equipment
  - Sulfur Oxides: Sulfur Recovery Plants
  - Particulate Matter: Processes listed in Table I
  - Particulate Matter: Fuel-Burning or Combustion Equipment
- Table of Ambient Air Quality Standards

## COKE OVEN GAS: SULFUR COMPOUNDS



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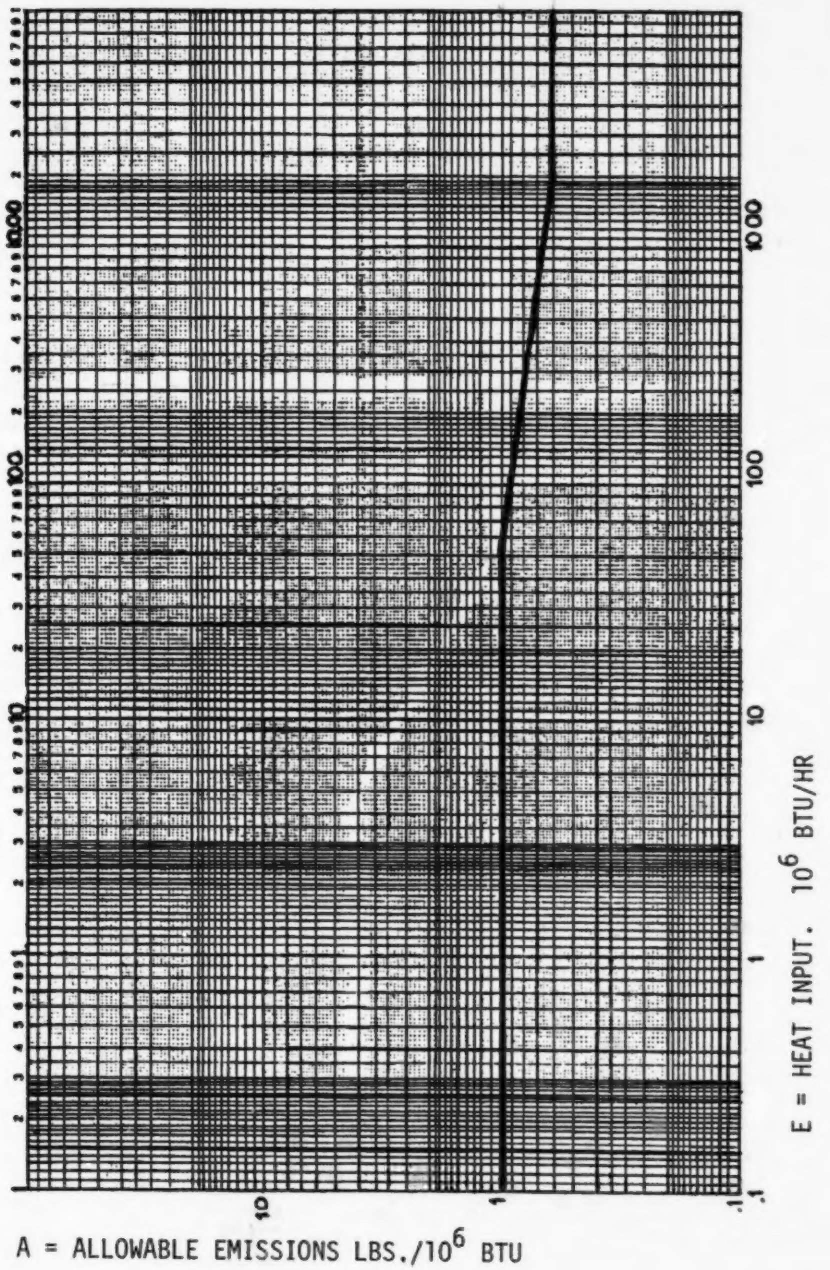
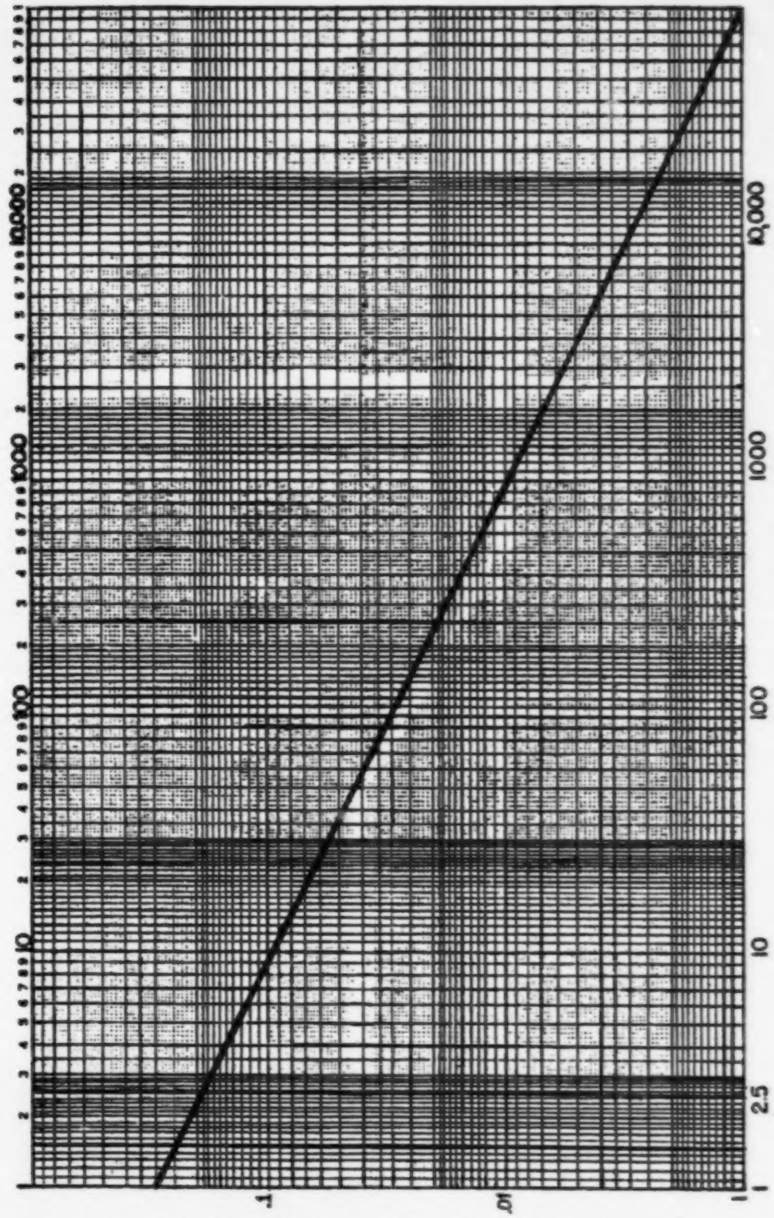
## SULFUR OXIDES: FUEL-BURNING OR COMBUSTION EQUIPMENT



## SULFUR OXIDES:  SULFUR RECOVERY PLANTS



E = RATING, LONG TONS/DAY

A = ALLOWABLE EMISSIONS LBS. $SO_2$/LB. S

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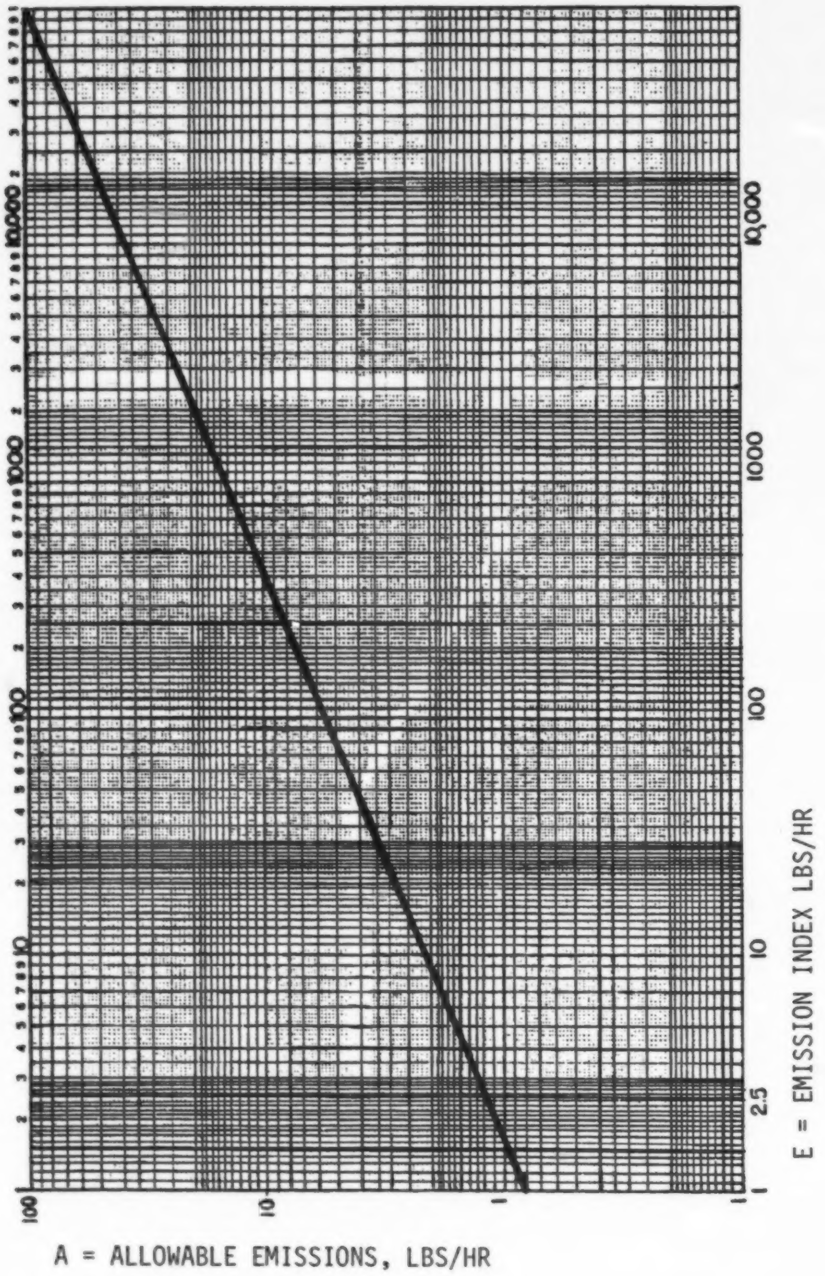
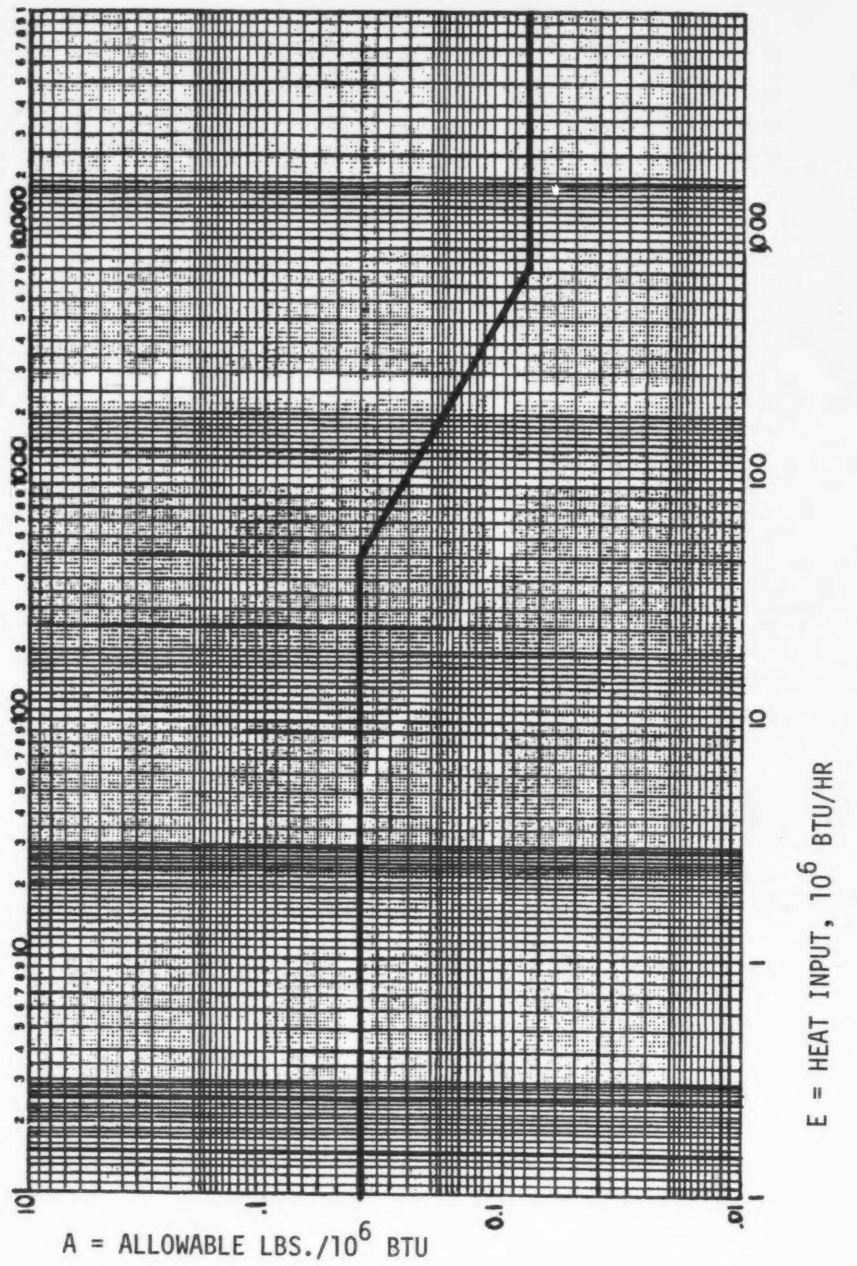
PARTICULATE MATTER:  PROCESSES LISTED IN TABLE I



PARTICULATE MATTER: FUEL-BURNING OR COMBUSTION EQUIPMENT



## AMBIENT AIR QUALITY STANDARDS

The following ambient air quality standards are incorporated in Article XVIII. Except where stated, these are maximum values in units of micrograms per cubic meter, not to be exceeded.

| CONTAMINANT | CONCENTRATIONS AVERAGED OVER<br>1 yr. | 30 days | 24 hr. | 8 hr. | 4 hr. | 3 hr. | 1 hr. |
|---|---|---|---|---|---|---|---|
| Suspended Particulate Matter | | | | | | | |
| National Primary | 75[a] | | 260[c] | | | | |
| National Secondary | 60[a] | | 150[c] | | | | |
| Allegheny County | | | | | 350 | | |
| Sulfur Oxides | | | | | | | |
| National Primary | 80[b] | | 365[c] | | | | |
| National Secondary | 60[b] | | 260[c] | | | 1300[c] | |
| Nitrogen Oxides | | | | | | | |
| National Primary & Secondary | 100[b] | | | | | | |
| Carbon Monoxide | | | | | | | |
| National Primary & Secondary | | | | 10,000[c] | | | 40,000[c] |
| Photochemical Oxidants | | | | | | | |
| National Primary & Secondary | | | | | | | 160[c] |
| Hydrocarbons | | | | | | | |
| National Primary & Secondary | | | | | | 160[c,d] | |
| Settled Particulates[e] | 800[b] | 1500 | | | | | |
| Lead[e] | | 5 | | | | | |
| Berryllium[e] | | 0.01 | | | | | |
| Sulfates (as $H_2SO_4$)[e] | | 10 | 30 | | | | |
| Fluorides[e] (total soluble, as HF) | | 5 | | | | | |
| Hydrogen Sulfide[e] | | | 0.005 ppm | | | | 0.1 ppm |

For conversion of standards for gaseous contaminants from ug/m$^3$ to ppm (dry volume) multiply ug/m$^3$ by (24.5 / 1000 x molecular weight).

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[a] geometric mean
[b] arithmetic mean
[c] not to be exceeded more than once a year
[d] only applicable 6 AM - 9 AM
[e] Commonwealth of Pennsylvania Standards, incorporated by reference in Article XVIII

# ALLEGHENY COUNTY VOC REGULATIONS

## Chapter I - GENERAL

### 101 Definitions

Automobiles - All passenger cars capable of seating 12 or fewer passengers and all major components of such cars including, but not limited to, chasses, frames, doors, and engines.

Bulk gasoline plant - A gasoline storage and distribution facility with an average daily throughput of less than 20,000 gallons (76,000 liters) or more of gasoline.

Bulk gasoline terminal| - A gasoline storage and distribution facility which has an average daily throughput of 20,000 gallons (76,000 liters) or more of gasoline

Can coating - Exterior coating and interior spray coating in two-piece can lines; interior and exterior coating in sheet coating lines for three-piece cans; side seam spray coating and interior spray coating in can fabricating lines for three-piece cans; and sealing compound application and sheet coating in end coating lines.

Coating - Any fluid including, but not limited to, paint, varnish, ink adhesive, solvent and water to be applied to a solid surface to form a hard exterior surface.

Coil coating - The coating of any flat metal sheet or strip.

Cold cleaning degreaser - Any batch loaded device using non-boiling organic solvent to clean or degrease metal parts.

Conveyorized degreaser - Any continuously loaded device, containing either boiling or non-boiling solvents, used to clean metal parts or used in the production of electronic circuit boards.

Cutback asphalt - Asphalt cement which has been liquefied by blending with petroleum solvents (diluents) which upon application evaporate to the atmosphere. Excluded from this definition is any emulsified asphalt paving compound which contains less than twelve (12) percent of solvent (diluent) by volume.

Fabric coating - The coating of a textile substrate by any method including but not limited to roll coating, knife coating, spray coating or use of a rotogravure device in order to impart properties that are not initially present, such as strength, stability, water or acid repellancy, or appearance.

Freeboard ratio - For a cold cleaning degreaser, the distance from the liquid solvent to the top edge of the degreaser divided by the degreaser width (not length); for an operating vapor degreaser or a conveyorized degreaser, the distance from the top of the solvent vapor layer to the top edge of the degreaser divided by the degreaser width (not length).

Gasoline - Any petroleum distillate having a Reid vapor pressure of four pounds per square inch (28 kilopascals) or greater and which is a liquid at standard temperature and pressure.

Large appliances - Doors, cases, lids, panels, and interior support parts of washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners, and other similar products.

Light duty trucks - Any motor vehicles other than automobiles rated 8,500 pounds gross vehicle weight or less which are designed primarily for purposes of transportation and all major components of such vehicles including but not limited to chasses, frames, doors and engines.

Magnet wire coating - The process of applying a coating of electrically insulating varnish or enamel to aluminum or copper wire for use in electrical machinery.

Metal furniture coating - The surface coating of any furniture made of metal or any metal part which will be assembled with other metal, wood, fabric, plastic or glass parts to form a furniture piece.

Open top vapor degreaser - Any batch loaded device used to clean metal parts through the condensation of organic solvent on colder metal parts.

Paper coating - Coatings applied in a uniform layer to paper and pressure sensitive tapes regardless of substrate. Related web coating processes on plastic films and decorative coatings on metal foil are included in this definition. Coatings applied in whole or in part as nonuniform layers such as patterns, designs, or print are not included.

Paving operation - The process of covering an area with stone, concrete, asphalt, or other material in order to make a firm, level surface for travel. Compounds used exclusively as residential driveway sealing compounds are excluded.

Solvent - Organic compounds which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents.

Surface coating process - The application and solidification of a coating.

Vinyl coating - Application of a decorative or protective topcoat or printing on a vinyl sheets.

Volatile organic compounds (VOC) - Any compound, excluding carbonic acid, metallic carbides and carbonates, containing carbon and hydrogen alone or in combination with any other element which has a vapor pressure greater than 0.002 psia (0.014 pascals) under standard conditions or which is collected employing the test procedures and conditions specified herein.

Wastewater separator - A holding area for waste liquids in which waste materials are separated from water by gravity.

## Chapter II - INSPECTIONS, REPORTS, RECORDS, MONITORING, AND TESTING

### References

1. "Standard Method of Test for Volatile Content of Paints," American Society for Testing Materials, D 2369-73, 1916 Race Street, Philadelphia, Pennsylvania.

2. "Water in Paint and Varnishes, (Karl Fischer Titration Method)," Federal Standard 141 a, Method 4082.1, General Services Administration, Business Service Center, Washington, D.C.

3. "Standard Method of Test for Density of Paint, Varnish, Lacquer, and Related Products," American Society for Testing Materials, D 1475-60 (reapproved 1974), 1916 Race Street, Philadelphia, Pennsylvania.

4. Standard Methods for the Examination of Water and Wastewater, 14th Ed., "Organic Carbon (total), Combustion-Infrared Method," American Public Health Association, Washington, D.C.

5. Source Testing Manual, 1978, "Test Methods for the Collection and Analysis of Volatile Organic Compounds" Pennsylvania Department of Environmental Resources, Bureau of Air Quality Control, Harrisburg, Pennsylvania.

6. Emission Test Procedure for Tank Truck Gasoline Loading Terminals (Appendix A), "Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals," EPA - 450/2-77-026, United States Environmental Protection Agency, October, 1977.

### Emissions of Volatile Organic Compounds

A. The following are applicable to tests for determining volatile organic content:

   1. Test methods and procedures for the volatile organic content, water content and density of surface coatings shall be equivalent to those specified in Section__1, 2 and 3, respectively, of this Article.

   2. Test methods and procedures for the volatile organic compounds in effluent water shall be equivalent to those specified in Section___4 of this Article.

   3. Results shall be reported in accordance with the units specified in Sections 505 and 506 of this Article.

B. The following are applicable to tests for determining the emissions of volatile organic compounds:

1. Test methods for volatile organic compound emission shall use a condensation technique having at least a 95% collection efficiency for volatile organic compounds.

2. Except for gasoline vapor recovery systems, the test methods and procedures and equipment for volatile organic compounds, excluding carbon dioxide, carbon monoxide and methane, shall be equivalent to those specified in Section __ 5 of this Article. The owner or operator of any source may exclude ethane from the volatile organic compound measurement. If ethane is excluded the measurement of ethane must be reported separately.

3. For gasoline vapor recovery systems, test methods and procedures and equipment for volatile organic compounds shall be equivalent to those specified in Section __ 6 or 7 of this Article.

4. Results shall be reported in accordance with the units specified in Sections 506, 507, 508 and 509 of this Article.

## Chapter V - STANDARDS FOR SOURCES

### 501. Equivalent Compliance Techniques

Techniques other than those specified in this Chapter may be used to comply with the requirements of this Chapter if the Director has approved in writing such alternative techniques after finding that they are equivalent to or better than those techniques specified in this Chapter in terms of emission control efficiency, reliability, availability, enforceability and overall effect on the public health, safety and welfare. The burden of demonstrating the equivalency of such alternative techniques to the Director's satisfaction and all expenses incident thereto shall be borne by the owner or operator of the affected source.

### 502. Other Requirements Not Affected

Compliance with the requirements of this Chapter shall not in any manner relieve any person from the duty to fully comply with any other applicable federal, state or county statute, rule, regulation or the like, including, but not limited to, Section __ of this Article (concerning odors), any applicable New Source Performance Standards or National Emission Standards for Hazardous Air Pollutants established by the United States Environmental Protection Agency, any applicable requirement of best available control technology or lowest achievable emission rate as provided by Chapter VIII of this Article, any condition contained in any applicable installation or operating permit and/or any additional or more stringent requirements contained in an Order issued to such person pursuant to Section 302 of this Article.

### 503. Operation and Maintenance

All air pollution control equipment required by this Chapter, and all equivalent compliance techniques which have been approved by the Director pursuant to Section 501 of this Article, shall be properly installed, maintained and operated consistent with good air pollution control practice. All floating roofs shall be maintained in good condition such that there are no visible holes, tears or other openings in the seals or any seal fabric.

### 504. Temporary Shutdown of Incineration Equipment

Upon a written request from the owner or operator of a source which has installed incineration equipment using auxiliary fuel in order to comply with Sections 505, 506, 507, 508, 509 or 510 of this Article, the Director may authorize the temporary shutdown of such equipment during the months of December, January and February for purposes of fuel conservation, provided that such equipment is not required for purposes of occupational health or safety, control of toxic or hazardous substances or other regulated pollutants, or for compliance with Section __ of this Article (concerning odors). Such authorization shall be in writing and may be conditioned or revoked as the Director deems appropriate to further the purposes of this Article.

### 505. Surface Coating Processes

A. No person shall operate, or allow to be operated, any source which has the potential to emit from its surface coating processes a total of more than 500 pounds (230 kilograms) per day or 50 tons (45,450 kilograms) per year of volatile organic compounds, unless:

1. the weight of volatile organic compounds per gallon of coating (minus water) used in such processes is no greater than the weight specified in Table I; or,
2. the weight of volatile organic compounds emitted into the open air from such processes is reduced through the use of a vapor recovery system, incineration or an equivalent compliance technique approved by the Director pursuant to Section 501 of this Article by the percentage determined by the following equation:

$$\text{Percent reduction required} = 100 \left[ 1 - \frac{Y}{X} \left( \frac{Z - X}{Z - Y} \right) \right]$$

where X = pounds of VOC per gallon of coating (minus water) for present coating

Y = pounds of VOC per gallon of coating (minus water) found in Table I

Z = density of VOC in pounds per gallon

B. The owner or operator of any surface coating process to which this section applies shall keep daily records of the quantity and composition of coating(s) used in each such process. Such records shall be retained for two (2) years and shall be made available to the Department upon request for inspection and copying.

C. Compliance Schedule. Compliance with this section shall be achieved according to the schedule set forth in Section 512 of this Article.

## TABLE I

## ALLOWABLE CONTENT OF VOLATILE ORGANIC COMPOUNDS IN SURFACE COATINGS BY PROCESS

| | Allowable VOC Content Weight of VOC per Volume of Coating (minus water) | |
|---|---|---|
| Surface Coating Process | pounds per gallon | (kg. per liter) |
| 1. Can coating | | |
| (a) sheet basecoat | 2.84 | (0.34) |
| (b) two piece can exterior | 2.84 | (0.34) |
| (c) two & three piece can interior body spray | 4.25 | (0.51) |
| (d) two piece can end exterior | 4.25 | (0.51) |
| (e) side-seam spray | 5.51 | (0.66) |
| (f) end sealing compound | 3.67 | (0.44) |
| 2. Coil coating | 2.60 | (0.31) |
| 3. Fabric coating | 2.92 | (0.35) |
| 4. Vinyl coating | 3.76 | (0.45) |
| 5. Paper coating | 2.92 | (0.35) |
| 6. Automobile and light duty truck coating | | |
| (a) prime coat | 1.92 | (0.23) |
| (b) top coat | 2.84 | (0.34) |
| (c) repair | 4.84 | (0.58) |
| 7. Metal furniture coating | 3.00 | (0.36) |
| 8. Magnet wire coating | 1.67 | (0.20) |
| 9. Large appliance coating | 2.84 | (0.34) |

### 506. Petroleum Refineries

A. Wastewater Separators. No person shall operate, or allow to be operated, any compartment of any single - or multiple-compartment wastewater separator in a petroleum refinery which compartment receives effluent water containing 200 gallons (760 liters) or more per day of any volatile organic compound, unless there is in operation on such compartment:

1. A container having all openings sealed and totally enclosed the liquid contents; or,

2. A container equipped with a pontoon type roof, double deck type roof or internal floating cover which rests on the surface of the liquid contents and is equipped with a closure seal or seals to close the space between the roof edge and container wall.

All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

B. Pumps and Compressors. No person shall operate, or allow to be operated, any pump or compressor in a petroleum refinery handling volatile organic compounds with a vapor pressure greater than 1.25 psia (8.6 kilopascals) at actual pumping conditions, unless such pump or compressor is equipped with mechanical seals.

C. Vacuum Producing Systems. No person shall operate, or allow to be operated, any vacuum producing system in a petroleum refinery which would, if uncontrolled, emit volatile organic compounds into the open air, unless there is in operation on the condensers, hot wells and accumulators of such system:

1. Incineration equipment;

2. Equipment to direct the volatile organic vapors to the refinery fuel gas system; or,

3. Other equipment approved in writing by the Director which recovers at least 90% by weight of the volatile organic compounds that would otherwise be emitted.

D. Process Unit Turnarounds. Purging of volatile organic compounds during depressurization of reactors, fractionating columns, pipes and/or vessels during unit shutdown, repair, inspection or startup shall be done in such manner as to direct the volatile organic vapors to a fuel gas system, flare or vapor recovery system until the internal pressure in such equipment reaches 19.7 psia (136 Kilopascals).

E. Compliance Schedule. Compliance with this section shall be achieved according to the schedule set forth in Section 512 of this Article.

## 507. Volatile Organic Compound Storage Tanks

A. Capacity Greater Than or Equal to 2,000 Gallons But Less Than or Equal to 40,000 Gallons. No person shall place or store, or allow to be placed or stored, a volatile organic compound having a vapor pressure of 1.25 psia (8.6 kilopascals) under actual storage conditions in any above-ground stationary storage tank having a capacity equal to or greater than 2,000 gallons (7,600 liters) but less than or equal to 40,000 gallons (152,000 liters), unless there is in operation on such tank pressure relief valves which are set to release at the higher of 0.7 psig (4.8 kilopascals) of pressure or 0.3 psig (2.1 kilopascals) of vacuum or at the highest possible pressure and vacuum in accordance with state or local fire codes, National Fire Prevention Association guidelines or other national consensus standard approved in writing by the Director. Compliance with this subsection shall be achieved according to the schedule set forth in Section 512 of this Article.

B. Capacity Greater Than 40,000 Gallons. No person shall place or store, or allow to be placed or stored, a volatile organic compound having a vapor pressure greater than 1.25 psia (8.6 kilopascals) under actual storage conditions in any stationary tank, reservoir or other container with a capacity greater than 40,000 gallons (152,000 liters), unless such tank, reservoir or other container is a pressure tank capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere or is equipped with:

1. A pontoon type roof, double deck roof or internal floating cover which rests on the surface of the liquid contents and is equipped with a closure seal or seals to close the space between the roof edge and container wall, except that this control equipment shall not be permitted if the volatile organic compounds have a vapor pressure of 11.0 psia (76 kilopascals) or greater under actual storage conditions; or,

2. A vapor recovery disposal system reducing uncontrolled emissions of volatile organic compounds by at least 80% by weight. Compliance testing shall be done in accordance with the provisions of Section _____ of this Article.

All gauging and sampline devices shall be gas-tight except when gauging or sampling is taking place.

C. New Installations. All external floating roofs required by this Section which are installed after December 31, 1979, shall be equipped with double closure seals to close the space between the roof edge and tank wall.

D. For volatile organic compounds whose storage temperature is governed by ambient weather conditions, the vapor pressure under actual storage conditions shall be determined using a temperature which is representative of the average storage temperature for the hottest month of the year in which such storage takes place.

## 508. Gasoline Loading Facilities

A. Handling. No person shall handle, or allow to be handled, gasoline in any bulk gasoline terminal, bulk gasoline plant or other source subject to this Section in such manner that it is spilled, discarded in sewers, stored in open containers, or otherwise handled so as to result in uncontrolled evaporation into the open air.

B. Vapor Balance Systems. All vapor balance systems required by this Section shall be maintained in good working order and shall be properly connected and operated. During gasoline transfers:

1. There shall be no visually or audibly detectable leaks from stationary or vehicular tanks, their pressure and vacuum relief valves, vehicular tank hatch covers or associated vapor or liquid lines; and,
2. The pressure and vacuum relief valves on stationary and vehicular tanks shall be set to release at the higher of 0.7 psig (4.8 kilopascals) of pressure or 0.3 psig (2.1 kilopascals) of vacuum or the highest allowable pressure and vacuum specified in state or local fire codes, National Fire Prevention Association guidelines or other national consensus standard approved in writing by the Director.

At all times during gasoline transfers from a vehicular tank into a stationary tank the vehicular tank hatch shall be closed without visually or audibly detectable leaks.

C. Bulk Gasoline Terminals. No person shall load, or allow to be loaded, gasoline from a bulk gasoline terminal into a vehicular tank with a capacity greater than 250 gallons (950 liters) unless there is in operation on the gasoline loading racks:

1. A vapor collection and disposal system reducing uncontrolled emissions by at least 90% by weight or emitting no more than 0.0668 pounds 930.3 grams) of gasoline for every 100 gallons (380 liters) of gasoline loaded; and,
2. A loading arm with a vapor collection adaptor and pneumatic, hydraulic or other mechanical means to force a vapor-tight seal between the adaptor and the hatch of the vehicular tank. A means shall also be provided to prevent gasoline

drainage from the loading device when it is not connected to the hatch, and to accomplish complete drainage before disconnection. When loading is done by means other than hatches, all loading and vapor lines shall be equipped with fittings which make vapor-tight connections and which are closed when disconnected.

Compliance testing shall be done according to the provisions of Section _____ of this Article.

D. Bulk Gasoline Plants. No person shall load, or allow to be loaded, gasoline from a bulk gasoline plant stationary tank into a vehicular tank with a capacity greater than 250 gallons (950 liters) unless such loading is done by means of bottom filling with the inlet flush with the vehicular tank bottom or by means of top-submerged filling with the fill pipe extending to within 6 inches (0.15 meters) of the bottom of the vehicular tank throughout the loading operation.

In addition, no person shall load, or allow to be loaded, gasoline into any stationary tank of a bulk gasoline plant, or from any such stationary tank into a vehicular tank with a capacity greater than 250 gallons (950 liters), unless there is in operation on such stationary tank:

1. A vapor balance system which emits no more than the amount of emissions permitted by subsection C.1 of this Section; or,

2. A floating roof complying with Section 507 B.1 of this Article and a vapor recovery and disposal system which emits no more than the amount of emissions permitted by subsection C.1 of this Section.

E. Small Gasoline Storage Tanks. No person shall load, or allow to be loaded, gasoline from any vehicular tank into any stationary storage tank with (i) a capacity of 2,000 gallons (7,600 liters) or more which was installed prior to July 1, 1979, or, (ii) a capacity of 250 gallons (950 liters) or more which was installed after July 1, 1979, unless there is in operation on such storage tank a vapor balance system which emits no more than the amount of emissions permitted by subsection C.1 of this Section and unless the stationary tank is equipped with a submerged fill pipe extending to within 6 inches (0.15 meters) of the bottom of the tank throughout the loading operation.

F. Compliance Schedule. Compliance with subsections C, D and E shall be achieved according to the schedule set forth in Section 512 of this Article.

## 509. Degreasing Operations

A. Cold Cleaning Degreaser. No person shall operate, or allow to be operated, any cold cleaning degreaser with a degreaser opening exceeding ten (10) square feet (0.93 square meters), unless:

1. There is in operation on such degreaser:
   a. a cover to prevent evaporation of solvent during periods of non-use;
   b. equipment for draining cleaned parts; and,
   c. a permanent conspicuous label summarizing the operating requirements set forth in subsection A.2 below; and,
2. Such degreaser is operated at all times in such manner that:
   a. waste solvents are transferred to another party or disposed of by means insuring that no more than 20% by weight of the solvents evaporate into the open air;
   b. waste solvents are stored in covered containers;
   c. the degreaser cover is closed when parts are not being processed through the degreaser; and,
   d. cleaned parts are drained for at least 15 seconds or until dripping ceases.

B. Open Top Vapor Degreaser. No person shall operate, or allow to be operated, any open top vapor degreaser, unless:

1. Such degreaser has:
   a. a freeboard ratio greater than or equal to 0.75 and, if the degreaser opening is greater than ten (10) square (0.93 square meters), the degreaser cover is powered;
   b. a refrigerated chiller in operation;
   c. an enclosed design in which the cover or door opens only when the dry part is actually entering or exiting the degreaser; or,
   d. a carbon adsorption system in operation, with ventilation greater than 50 cfm/square foot (15 cubic meters/minute/square meter) of air/vapor area when the cover is open and which emits less than 25 parts per million of solvent by volume averaged over one complete adsorption cycle; and,

2. There is in operation on such degreaser:

   a. a cover that can be opened and closed easily without disturbing the vapor zone;

   b. a safety switch which shuts off the sump heat if condenser coolant is either not circulating or too warm (condenser flow switch and thermostat);

   c. a safety switch which shuts off the spray pump if the vapor level drops more than 4 inches (10 cm.); and,

   d. a permanent conspicuous label summarizing the operating requirements set forth in subsection B.3 below; and,

3. Such degreaser is operated at all times in such manner that:

   a. the degreaser cover is closed when parts are not being processed through the degreaser;

   b. all parts being degreased are racked to allow full drainage;

   c. parts being degreased are moved in and out of the degreaser at less than eleven (11) feet (3.3 meters) per minute;

   d. all pools of solvent on degreased parts are drained before the parts are removed from the degreaser;

   e. all degreased parts are dried within the degreaser for at least 15 seconds or until visually dry;

   f. porous or absorbent materials, such as cloth, leather, wood or rope, are not degreased;

   g. parts being degreased do not occupy more than half of the degreaser's open top area;

   h. the vapor level does not drop more than 4 inches (10 cm.) when the parts enter the vapor zone;

   i. spraying is not done above the vapor level;

   j. solvent leaks are immediately repaired or the degreaser immediately shut down;

   k. waste solvents are transferred to another party or disposed of by a means insuring that no more than 20% by weight of the solvents evaporate into the open air;

   l. waste solvents are stored in covered containers;

m. exhaust ventilation does not exceed 65 cfm/square foot (20 cubic meters/minute/square meter) of degreaser opening, unless necessary to meet OSHA requirements;

n. ventilation fans are not operated near the degreaser opening; and,

o. water is not visually detectable in solvent exiting the water separater.

C. Conveyorized Degreasers. No person shall operate, or allow to be operated, any conveyorized degreaser, unless:

1. There is in operation on such degreaser:

   a. a refrigerated chiller or a carbon adsorption system, with ventilation greater than 50 cfm/square foot (15 cubic meters/minute/square meter) of air/ vapor area when the cover is open and which emits less than 25 parts per million of solvent by volume averaged over one complete adsorption cycle;

   b. a drying tunnel or another means such as a rotating (tumbling) basket sufficient to prevent degreased parts from carrying solvent liquid or vapor out of the degreaser;

   c. a safety switch which shuts off the sump heat if condenser coolant is either not circulating or too warm (condenser flow switch and thermostat);

   d. a safety switch which shuts off the spray pump if the vapor level drops more than 4 inches (10 cm.);

   e. a safety switch which shuts off the sump heat when the vapor level rises too high (vapor level control thermostat);

   f. entrances and exits which silhouette the parts to be degreased so that the average clearance between parts and the edge of the degreaser is either less than 4 inches (10 cm.) or less than 10% of the width of the opening;

   g. covers for closing off the entrances and exits when parts are not being processed through the degreaser; and,

   h. a permanent conspicuous label summarizing the operating requirements set forth in subsection C.2. below; and,

2. Such degreaser is operated at all times in such manner that:

a. exhaust ventilation does not exceed 65 cfm/square foot (20 cubic meters/minute/square meter) of degreaser opening, unless necessary to meet OSHA requirements;

b. ventilation fans are not operated near the degreaser opening;

c. waste solvents are transferred to another party or disposed of by a means insuring that no more than 20% by weight of the solvents evaporated into the open air;

d. waste solvents are stored in covered containers;

e. solvent leaks are immediately repaired or the degreaser shut down;

f. water is not visually detectable in solvent exiting the water separator; and,

g. the covers are placed over conveyor entrances and exits immediately after the conveyor and exhaust are shut down and immediately before they are started up.

D. Compliance Schedule. Compliance with this section shall be achieved according to the schedule set forth in Section 512 of this Article.

## 510. Cutback Asphalt Paving

On and after April 30, 1980, no person shall mix, store, use or apply, or allow the mixing, storage, use or application of, cutback asphalt for paving operations except when:

1. Long-life stockpile storage is necessary;
2. Use or application between October 31 and April 30 is necessry; or,
3. The cutback asphalt is used solely as a penetrating prime coat, a dust palliative, a tack coat, a precoating of aggregate, or a protective coating for concrete.

## 511. Ethylene Production Processes

No person shall operate, or allow the operation of, any ethylene production process, unless all waste gas streams are properly incinerated at no less than 1,300 degrees F (700 degrees C) for at least 0.3 seconds and the gasses from all vapor blowdown systems are burned by smokeless flares.

512. Compliance Schedules

A. Any person who proposes to comply with Section 505 of this Article through the use of low solvent content coatings shall adhere to all of the following increments of progress:

1. Submit plant which are as complete as possible for the application of low solvent content coating technology to the Director within six months of the date of adoption of this section;

2. Complete research and development within 1 year of the date of adoption of this section:

3. Complete evaluation of product quality and commercial acceptance within 18 months of the date of adoption of this section;

4. Issue purchase orders for low solvent content coatings and all necessary process modifications and submit Installation Permit applications within 21 months of the date of adoption of this section;

5. Initiate necessary process modifications within 2 years of the date of adoption of this section;

6. Complete necessary process modifications and initiate use of low solvent content coatings within 33 months of the date of adoption of this section;

7. Achieve final compliance no later than 3 years after the date of adoption of this section.

B. Any person to whom Section 506, 507.A, 508.C, D or E, or 509 applies, or who proposes to comply with Section 505 through the installation of emission control equipment, the replacement of process equipment or any other method not covered by subsection A of this Section shall adhere to all the following increments of progress:

1. Submit complete final plans for emission control or process equipment to the Director within six months of the date of adoption of this section;

2. Award all contracts or issue all purchase orders for necessary equipment and submit Installation Permit applications within 1 year of the date of adoption of this section;

3. Initiate on-site installation or construction within 18 months of the date of adoption of this section;

4. Complete on-site installation or construction within 21

months of the date of adoption of this section;

5. Achieve final compliance no later than two years after the date of adoption of this section.

C. Reports. It shall be a violation of this Article for any person subject to a compliance schedule contained in this section to fail to report in writing to the Director within five days after the deadline for each increment of progress whether the required increment of progress has beem met.

D. Small Gasoline Storage Tanks. Upon written notification to the Director, the owner or operator of a gasoline storage tank to which Section 507.E of this Article applies may authorize the person who delivers gasoline to such tank to submit the reports required by this section, provided, however, that such owner or operator shall in no manner be relieved of the duty to achieve the increments of progress required by this section, or no later than five days after receipt of a written request from the Director, to submit the reports required by this section.